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The Journal

OF THE

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Michigan State Medical Society

The Official Organ of the State and County Medical Societies

Published Monthly under the Direction of the Council

VOLUME XII

January to December, 1913

FREDERICK C. WARNSHUIS, M.D.

EDITOR

The Journal of the Michigan State Medical Society

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL

Vol. XII BATTLE CREEK, MICHIGAN, JANUARY, 1913 No. 1

ORIGINAL ARTICLES

MICHIGAN MEDICAL LAW

The Laws of Michigan Relating to the Qualifications, Classifications and Regulations of Medical Practitioners; What They Include and How They Are Interpreted.*

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Ionia, Mich.

In the preparation of this paper I owe much of the available information to a brief (furnished me by Dr. H. B. Knapp) prepared by the attorneys of the American Medical Assoeiation on the "Legal Aspeets of the Chiropractic," dealing espeeially with the Michigan Medical Aet. That brief was prepared two years ago, and I have been able to supplement their arguments with eases which have been decided since.

Prior to 1899 when the present Medieal Act was passed, the law was very meager as to the qualification of a medical praetitioner. There was, however, one expression which though commonplace, has been carried into the present law and will serve to distinguish our statute from others, whieh in the course of this diseussion will come in question.

The old Act read in part "it shall not be lawful for any person to praetiee medicine or surgery, or any branch thereof (exeept dentistry) in this state, without," etc.

I desire you to notiee that no attempt is made by the Legislature to say what the terms "praetice medieine or surgery" mean. I desire to call your attention also to the fact that the words "or any braneh thereof" are added and that dentistry is exeepted.

In 1899 the medical act now in force was passed, but it has been the subjeet of some amendments since that time. I shall treat it, of course, in its amended form as it stands to-day. This requires those "who wish to begin the practice of medieine and surgery in any of its braneches in this state" to be registered, examined and licensed. So far the provisions as to elassifications are almost identical. The act now excepts from its operation army surgeons, ete., dentists and registered osteopaths.

Now osteopaths by the Act of 1897 had been licensed separately, so they were in 1899 taken out of the elass known as those "who praetice medieine and surgery in any of its braneches."

Sinee then optometry has grown as a science. Optometrists were separately licensed in 1909, and that science defined:

* Read before the Ionia County Medical Society, August, 1912.

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"The practice of optometry is hereby defined to be the employment of any means other than the use of drugs for the measurement of the powers of vision and the determination of the accommodative and refractive states of the eye and the scope of its functions in general, and the adaption of lenses and frames for the aid thereof; Provided, That the provisions of this Act shall not be considered to apply to physicians and surgeons duly licensed to practice medicine under the laws of this State, nor to prevent any person or persons selling spectacles or eyeglasses on prescription from any duly qualified optometrist or physician, nor to prevent any person or persons selling glasses as an article of merchandise and not trafficking or attempting to traffic upon assumed skill."

There are no other exceptions to the medical act than those given above which are based on any distinction as to method, manner or extent of treatment.

During the past few years another system of healing has been propagated under the name of Chiropractic, and I take it from the subject which is assigned to me, it is desired that I discuss the question of whether a Chiropractic comes within the Michigan Medical Act so as to require his registration, examination and licensing.

To begin with we must divide the proposition into these parts:

(a) What is a chiropractic and his method?

(b) Does he come within the term ostcopath which is excepted from the act?

(c) Does he come within the purpose of the medical act as defined.

(d) What do the words "practice medicine and surgery" mean as judicially defined?

(e) Does a chiropractic come within that definition?

First then we must define a chiropractic. Not being so conversant with medical and anatomical terms as to enable me to prepare a definition of my own I must be content with taking the claims of chiropractics as disclosed in their advertising matter as being a description of their art, and from the definitions of dictionaries and courts.

Websters New International Dictionary (1910) gives this definition:

"Chiropractic (chiro Gr. praktikos, practical, fr. prassein, to do). A system of healing that treats disease by manipulation of the spinal column."

From a published lecture entitled the "Chiropractic Idea," by G. H. Patchen, B.S., M.D., delivered Nov. 12, 1907, before the "Health Culture Club" of New York, a copy of which I have, marked with the compliments of J. J. Healy, Doctor of Chiropractic Syndylotherapy, Belding, Mich., I take the following definitions of the term Chiropractic:

".....applied to the study of the cause, nature and elimination of disease, it means a science and philosophy which claims to be able not only to analyze and locate unerringly, the physical cause of disease, but also to provide an original, unique and adequate means of adjusting or removing the cause more promptly, radically and permanently than by any other method known at the present time."

Chiropractic, then, consists of a diagnosis of the cause of the disease and of the location and release of the impigned nerve by hand manipulation of the spinal vertebrae.

If we accept these definitions of a chiropractic we need next to determine whether a chiropractic comes within the term osteopath and can be licensed under that act, for if he does, he does not come within the medical act.

It will be our contention in construing the medical act that it has a broad purpose intended by the legislature and construed by the courts to cover the whole field of the healing art. To this act you will recall I have earlier pointed out the exceptions of those who need not be licensed under the medical act, one is the

osteopath licensed under the osteopathy act.

It is a familiar rule of statutory construction that an act which includes terms which are liberally construed must be construed strictly against the exceptions. In other words where it is found that the general terms of the act require or were intended to have a broad interpretation it will be presumed by the courts that nothing is excepted from the operation of the act which is not expressly excepted.

Applying this rule to the present act I shall contend and attempt to prove that the words "practice medicine and surgery in all its branches" require a broad interpretation of a general purpose to cover the whole science of healing, and the exception of osteopathy included as a part of the act relates to osteopathy with the strictest definition that can be put on it.

That osteopathy does not include chiropractic ought not to be hard to prove when both schools disclaim at every opportunity that the two are in no way related.

I desire to quote again from the same literature heretofore referred to.

In the annual announcement No. 2 of the Palmer School of Chiropractic, "Chiropractic's Fountain Head," Davenport, Iowa, 1908, I find the following on page 108:

"Is Chiropractic Osteopathy?" Under this heading are printed letters from different schools and associations of Osteopathy, in which the writers assert that Chiropractic is not taught or recognized by them.

These letters are conclusive evidence that Chiropractic is not known or taught in Osteopathic schools.

Page 110. "An Enviable Record." Under this heading are printed letters from former students of the Palmer School, referring to the difference between Osteopathy and Chiropractic.

On page 111, we find this letter: "....I am now taking adjustments for several troubles which Osteopathy has failed to relieve. One week's adjustment has made a decided improvement. I am a Kirksville graduate of Osteopathy. Will say that there is no resemblance between Osteopathy and Chiropractic. As to the method of application, either could be practiced without the knowledge of the other..... And again on the same page: "The Osteopaths do not seem to realize that their prosecutions and persecutions are pushing Chiropractic to the front and will certainly act as a boomerang on Osteopathy and make it a back number."

On page 113. "My first patient was a young man with general rheumatism. I gave him one adjustment, he never returned. I no longer use the Osteopathic table, nor give Osteopathic treatments. My patients submit to adjustments without any of the accessories that I used to give in Osteopathy. I have not given an Osteopathic treatment since my return."

On page 114. "After taking a two-year course at the A. T. Still School of Osteopathy and a short one at the Palmer School of Chiropractic, I feel competent to judge of, and appreciate the difference between, the two sciences as taught by their founders. Both use their hands, but in an entirely different manner. Neither one uses the movements of the other. The etiology of the two are dissimilar. The Chiropractors adjust for many diseases which the Osteopaths do not. They cure acute diseases by one or two adjustments. They are given in a few seconds, without any previous relaxing of muscles or ligaments. Exostoses and ankyloses are disposed of by different methods. The two sciences are unlike in regard to the cause of disease and the mode of application. An Osteopath may not know anything that is Chiropractic, and vice versa. They are in no way related to, or similar to each other."

"Chiropractic not Osteopathy."

"One of the most frequent questions that a Chiropractor is called upon to answer is this: What is the difference between Chiropractic and Osteopathy? The difference is as great as the difference between the poles. Chiropractic does not treat effects. Chiropractors do not manipulate the muscles in any way. They adjust subluxated vertebrae into proper alignment and it takes but a fraction of a second to do it. The whole object is accomplished when the nerve force is turned on. The Osteopaths will spend one-half hour to two hours in treating their patients and then only relaxing the muscles. There is as much difference between Osteopathy and Chiropractic as there is between Chiro-

practic and the practice of medicine. The Chiropractor, confines his work to the Spinal Column only, as that is the only place the nerve can be impigned or where affections can exist."

Why Chiropractic is not Osteopathy.

Page 12. "Chiropractic is not Osteopathy. Chiropractic is a system of finding and removing the actual cause of disease, whereas Osteopathy, regardless of its claims to the contrary, is a system which is applied to the treatment of symptoms nine times where it is once applied to the actual removal of the cause."

We think the foregoing is enough to prove even without the aid of the rules of law that a chiropractic could not be licensed under the osteopathic act, because chiropractic is not osteopathy.

What do the words "practice of medicine and surgery in all its branches" mean by common and legal definition.

To begin with it must first be freely conceded on all sides that statutes such as this are constitutional. Those who have been shut out of practice have raised all sorts of objections which the courts have uniformly overruled. In so doing the courts have stated the purpose of the legislation and this becomes important to consider in defining the words, "Medicine and Surgery." With the virtues of chiropractic I have no concern. By the use of such words as quacks and charlatans I do not refer to any particular school of healing.

In 1888 the supreme court of this state decided the case of

People vs. Phippin, 70th Mich. 6

which arose under the old medical act. Other features of the case will be referred to later but the court in holding the law good says on page 19:

"There is no good reason why restraints should not be placed upon the practice of medicine as well as the law. The public are more directly interested in this than in the practice of law; and persons who engage in this profession require a special education to qualify them to practice. A great majority of the public know little of the anatomy of the human system, or of the nature of the ills that human flesh is heir to; and there is no profession, no occupation or calling, where people may more easily or readily be imposed upon by charlatans. It is almost an every-day experience that people afflicted with disease will purchase and swallow all sorts of nostrums because some quack has recommended it."

The following year the Supreme Court of the United States, speaking through Mr. Justice Field, says:

Dent vs. W. Va., 129 U. S., 114; 32 L. E., 623; 9 Sup. Ct. Rep., 231

"It is undoubtedly the right of every Citizen of the United States to follow any lawful calling, business or profession he may choose, subject only to such restrictions as are imposed upon all persons of like age, sex and condition . . . But there is no arbitrary deprivation of such right where its exercise is not permitted because of a failure to comply with conditions imposed by the State for the protection of society. The power of the State to provide for the general welfare of its people authorizes it to prescribe all such regulations as in its judgment will secure or tend to secure them against the consequences of ignorance and incapacity as well as of deception and fraud. As one means to this end it has been the practice of the different States, from time immemorial, to exact in many pursuits a certain degree of skill and learning upon which the community may confidently rely, their possession being generally ascertained upon an examination of parties by competent persons, or inferred from a certificate to them in the form of a diploma or license from an institution established for instruction on the subjects, scientific and otherwise, with which such pursuits have to deal. The nature and extent of the qualifications required must depend primarily upon the judgment of the State as to their necessity. If they are appropriate to the calling or profession, and attainable by reasonable study or application, no objection to their validity can be raised because of their stringency or difficulty. It is only when they have no relation to such calling or profession, or are unattainable by such reasonable study and application, that they can operate to deprive one of his right to pursue a lawful vocation.

"Few professions require more careful preparation by one who seeks it than that of medicine. It has to deal with all those subtle and mysterious influences upon which health and life depend, and requires not only a knowledge of the properties of vegetable and mineral substances but of the human body in all its complicated parts, and their relation to each other, as well as their influence upon the mind. The physician must be able to detect readily the presence of disease, and prescribe appropriate remedies for its removal. Everyone may have occasion to consult him, but comparatively few can judge of the qualifications of the learning and skill which he possesses. Reliance must be placed upon the assurance given by his license, issued by an authority competent to judge in that respect, that he possesses the requisite qualifications. Due consideration, therefore, for the protection of society may well induce the State to exclude from practice those who have not such a license, or who are found upon examination not to be fully qualified."

It is clear then that the purpose of these acts requiring medical men to be examined and licensed is a broad one. It is undertaken by the state in the exercise of its power to protect the people at large. It was not only to prevent the loss of money by the afflicted to those who pretend to heal and who assume powers beyond their limitations but it was the purpose also to prevent the impairment of the health of the sick by permitting them to be subjected to the ministrations of persons not skilled in the art of healing. The act itself is entitled as one to promote the public health.

In the case of Bragg vs. State, 58th L. R. A., on page 929, the court says:

"Is there anything in the language of the Statutes which prevents giving to the word medicine its legitimate technical use or meaning? This question can best be answered by tracing the history of the legislation on this subject culminating in the present Statutes.

"Before doing so, however, we should bring to mind the purpose of the enactments, and constantly keep before us that the legislative purpose was to protect the public against charlatanism, ignorance and quackery."

It is perhaps one of the most prominent failings of human beings evidenced in their sickness that they are not content to choose the dangers they now have rather than fly to others they know not of. Driven by the despair of a long illness, lacking the patience which health only gives, people are apt to be attracted by the glowing promises of those, whom Francis Bacon says, "undertake great cures, and perhaps have been lucky in two or three experiments, but want the grounds of science and therefore cannot hold out." Legislatures realizing this tendency among the afflicted have sought to protect them from the hands of those unskilled in the art of healing, from those who by sins of omission as well as those of commission would injure if not retard the patient. It seems that in spite of these restrictions of law the condition has not been entirely relieved.

Coupled with this purpose is the one to prevent the defrauding of the people. The sick and afflicted fall the easiest prey to those who with alluring promises traffic in the broken health of their victims. Then too so many diseases result from proverty, from improper food and clothing, poor housing and sanitation that those who most need help that is genuine are deprived of their money for help that ends with promises. The ignorance of a majority of the people in matters of health opens up a wide field for the unscrupulous quack. To protect the people from their own shortcomings these laws were passed with a broad purpose in mind not only to regulate those doctors whose principal treatment consists in the administration of drugs or remedies external and internal but to regulate all who aimed or professed by any system to be engaged in the art of healing. That this is the purpose of the statute as held by the court is shown by the following cases:

In State vs. Buswell, 40 Neb., 158; 24th L. R. A., 68; 58th N. W., 728, the supreme court of Nebraska said referring to the practice of Christian Science:

"The object of the Statute is to protect the afflicted from the pretensions of ignorant and avaricious, and its provisions are not limited to those who follow beaten paths and established usages. The conservatism resulting from the study of standard authors might be somewhat depended on to minimize the evils attendant upon unlicensed practitioners' attempts to follow regular and approved methods, although, as against even these the law should be enforced. Still more stringently should its provisions be rendered effective against pretensions based upon ignorance on the one hand and credulity on the other."

In State vs. Pollman, 51 Wash., 110; 98th Pac. Rep., 88, a drugless physican who gave treatments by manipulating the body, limbs, muscles and nerves, and flexing and manipulating the joints appealed from a conviction in a lower court. The supreme court in affirming the decision said:

"Its purpose being to prevent deception, the courts will give to it that meaning which will most effectually accomplish that purpose."

In State vs. Oredson, 96 Minn., 509; 105 N. W., 188, the court says:

"The act is a beneficial one, and is entitled to a reasonable construction. Its purpose was not, as the counsel for the defendant insists, to merely make prescribing for a fee an offense; so that the defendant could have practiced medicine generally, could have held himself out to the world as a physician and surgeon, could have examined patients, and inferentially could have operated upon them as a surgeon for pay, and yet would not have been guilty of a misdemeanor within the meaning of the act. On the contrary, its plain object was to prevent the public wrong of practicing medicine without a license. The act was not enacted for the benefit of any profession or of any school or theory of medicine. It was designed to secure the public in whole and in every part from quacks, humbugs, and charlatans masquerading under the venerable and honorable titles of surgeons, physicians and doctors, and to protect the public in a just reliance upon the one using these titles as a man of proper education and sufficiently trained in the sciences involved. A just enforcement of that act would tend to prevent the most deplorable swindling of the ignorant poor, who can least afford to pay for the luxury of deception, and who are the most likely to be the dupes of ostensible practitioners, whose competency has not been determined by law, and whose normal deficiencies are evidenced by their false pretenses. Its terms should be construed, so far as reasonably may be, so as to tend to eliminate the suffering of an individual from the misuse of inert drugs when potent ones are needed, and of powerful agencies productive of ill where proper ones might bring relief or effect a cure, so as to avoid many evils of malpractice, and so as to minimize the exposure of the community at large to the spread of avoidable pestilence. The act is at once a statute of frauds and a health ordinance."

If we have demonstrated then that the purpose of the medical act was to prevent deception and injury to health let us move on to the definition of the word medicine.

I do not mean by any of the foregoing to argue that chiropractic is quackery or charlatanism. With the virtues of that system I have no concern. The legal aspect only is open to my view.

The word medicine has two meanings and this fact has led in different jurisdictions to a broad and to a liberal construction. In one sense it means the substance administered externally or internally to the body for the purpose of cure or alleviation. In the other sense it is the art, practice or science of healing, curing, alleviating or preventing disease without reference to method.

Webster dictionary (1910) gives both these definitions. The Century and Standard dictionaries both recognize this dual meaning. Medical dictionaries recognize it.

Which meaning was in the mind of the legislature? Did they mean that a person

who practices a "Curative Substance" should be licensed? Or did they mean that a person who practices the art of curing diseases should be licensed? We think no well-ordered mind would hesitate to say that the latter question embodies their intention. If they mean the practice of the healing art without regard to method the medical act cannot be confined to those who administer drugs. And so, we believe it can be demonstrated, the courts have so held:

In Bragg vs. State, 134 Ala., 165; 58th L. R. A., 925. The court passed on the case of an osteopath and held him to be within the medical act saying:

"The word, medicine (Latin, medicina), is derived from medeor, to heal. It is defined by the eminent lexicographer of medical words or terms, Gould, to be "the science and art of preserving health and preventing and curing disease; the healing art, including also the science of obstetrics." By Dunglison, another author of a medical dictionary, to be "the healing art, physic; a science the object of which is the cure of disease and the preservation of health." Bigelow, an eminent physician and author of medical works, says: "Medicine is the art of understanding diseases, and curing or relieving them when possible." The Universal Cyclopedia edited by Rossiter Johnson, Ph.D., LL.D., after giving the derivation of the word "medicine" from that Latin word medicina, defines it to be "the art of a physician or of healing; the art the science of curing diseases." The Encyclopedia Britannica, under the title, Medicine, subtitle "Synoptical View of Medicine," says: "Medicine, the subject-matter of one of the learned professions, includes, as it now stands, a wide range of scientific knowledge and practical skill. The science of medicine is the theory of diseases and remedies." Definitions might be quoted from other writers, but these will suffice to show, not only that the word "medicine" is a technical word, denoting a science or art comprehending, not only therapeutics, but the art of understanding the nature of diseases, the causes that produce them, as well as the art of knowing how to prevent them —hygiene, sanitation, and the like. These definitions are fully supported and their correctness thoroughly established by the history of medicine, and its practice as a science or art. While it is true, as we said above, there have always existed differences among physicians as to the therapeutic agencies, yet it has never been supposed that the disciples of any particular school of the healing art were physicians—practitioners of medicine—and those of a different school or sect were not. They have all been regarded by eminent scholars as engaged in the practice of medicine."

The learned judge briefly reviews the history of medicine from its remote beginning to show that at many stages of the practice of medicine, the use of drugs did not constitute the chief feature of the science. Thus he says of Hippocrates, who lived in the fifth century B. C. and is sometimes referred to as the "Father of Medicine" (page 928, 58 L. R. A.):

"Indeed he and his disciples attached but little importance to drugs as a therapeutic agent, but relied in acute diseases mainly upon diet; the variations necessary in its administration in different diseases being minutely defined. In the treatment of cases of chronic diseases, diet, exercise, and natural methods were chiefly relied upon. Indeed, in those days, drugs as therapeutic agencies were of necessity of minor importance in the treatment of the sick, since they were few, and since chemical drugs were not discovered until long afterwards, to-wit: about the fifteenth century."

In summing up this subject in his opinion the justice says, speaking for the whole court (page 929, 58th L. R. A.):

"Thus we see that no system of therapeutics has been uniformly followed, and perhaps, as we have said, never will be. Indeed, we might go further, and show that at this day the regular practitioners of medicine, as they are known to the profession, recognize the efficaciousness of water, massage, electricity, and perhaps other external applications to the body, as scientific therapeutic agencies. It may not be amiss in this connection to instance the "rest cure"—a thoroughly recognized scientific treatment for mental or nervous troubles. It consists in keeping the patient quiet and at rest, giving to him occasionally a massage, an application of elec-

tricity, a sponge bath, with proper diet. No drug is used, except a laxative occasionally, if necessary. The use of drugs, however, is a secondary consideration, and may be dispensed with altogether. Thus it is made entirely clear, both by definitions and history, that the word medicine has a technical meaning, is a technical art or science, and as a science the practitioners of it are not simply those who prescribe drugs or other medicinal substances as remedial agents, but that it is broad enough to include, and does include, all persons which diagnose disease, and prescribe or apply any therapeutic agent for its cure."

At this point the judge reviews the history of legislation on this subject in Alabama, and reaches these conclusions:

Thus has been the growth and development of the law in this state regulating, the practice of medicine in any of its branches or departments as a profession. From this growth and development, can it be seriously doubted that it was not the intention or purpose of the legislative mind to restrict the examination of those desiring to practice medicine to that class of the profession who may prescribe drugs as therapeutic agents in the healing of diseases? We think not. On the contrary, the very first enactment on the subject (1823) prohibiting any person from prescribing for the cure of diseases for fee or reward without obtaining a license is a clear, unequivocal, and unmistakable declaration of the legislative purpose to deal with medicine and the practice of it in its broad and comprehensive sense—as a science or art of healing and curing diseases. And this purpose has been rather emphasized than otherwise in subsequent legislation on the subject. Our conclusion, therefore, is that the defendant was engaged in the practice of medicine, within the meaning of the statutes. This conclusion is fully supported by the decisions of other Courts. In Bibber vs. Simpson, 59 Maine, 181, Appleton, Ch. J., speaking for the court, said: "The services rendered were medical in their character. True, the plaintiff does not call herself a physician, but she visits her sick patients, examines their condition, determines the nature of the disease, and prescribes the remedies deemed by her most appropriate. Whether the plaintiff calls herself a 'medical clairvoyant' or a 'Clairvoyant physician' or a 'clear-seeing physician' matters little; assuredly, such service as the plaintiff claims to have rendered purport to be and are to be deemed medical." So it was held that she was not entitled to recover for her services, she having no license to practice medicine. In Hewitt vs. Charier, 16 Pick., 353, it was held (Shaw, Ch. J., delivering the opinion) that "a person who practices bone-setting, and reducing sprains, swellings, and contractions of the sinews by friction and fomentation, but no other branch of the healing art, is a person practicing surgery, within the meaning of the Statute 1818, chap. 131, Sec. 1, which provides that no person practicing physic or surgery shall be entitled to the benefit of law for the recovery of his fees unless he shall have been licensed by the Massachusetts Medical Society, or graduated a doctor in medicine in Harvard University." In Davidson vs. Bohlman, 37 Mo. App., 576, it was held that "the statutes restricting the right to practice medicine and surgery to registered physicians and surgeons, and requiring the filing of diplomas, apply to one who, as a physician, gives electric treatments. It is not necessary that one should administer internal remedies, in order to practice medicine within the meaning of the statutes which prohibited the practice of, or the attempt to practice, medicine or surgery without first filing a diploma, etc. The case of Eastman vs. People, use of State Bd. of Health, 71 Ill. App., 236, is directly in point. The appellant there, as here, was engaged in the practice of osteopathy. The statute of Illinois (Rev. Stat. 1893, chap. 91, sec. 14) defined "practitioners of medicine" in this language. 'Any person shall be regarded as practicing medicine within the meaning of this act who shall treat, operate on, or prescribe for any physical ailment of another." The Court, after saying that the appellant "professes to be able to diagnose and advise in respect to a long list of diseases, and to furnish discriminating and efficient treatment to those who may come to him, and while he may rely wholly upon manipulation, flexing, rubbing, extension, etc., yet he professes to have skill and judgment in these methods, so as properly to adapt the treatment to each case, giving it what is appropriate in amount, and with repetition at such times and to such extent as may be dictated by his knowledge and experience," and after stating Bigelow's and Dunglison's definitions of "medicine" held that the practice of osteopathy was the practice of medicine. We need only add that our Statutes are not so materially different from the statute construed in that case as to impair the decision of it, in

any degree, as an authority directly upon the question in hand.

It has been claimed in some cases that if a person did not use in his practice all the subjects on which examination is required he could not be held to the terms of the act. For instance a drugless healer might claim that he disregards the theories of bacteriology and does not use them; that the medical act requires examination in them, hence he cannot be brought within that act.

A similar situation might arise in my profession. Suppose that before I was admitted to the bar I decided to do no other business but defend criminal cases. I would therefore disclaim all use of municipal law, of court practice and procedure in civil cases, and of the many other departments of law. Simply by disclaiming them should I be permitted as an attorney in the criminal courts without a knowledge of other subjects?

The supreme court of Iowa in State vs. Heath, 125 Iowa, 585; 101 N. W., 429, disposed of this in this manner:

"Section 2576 of the Code requires all, regardless of the particular school, to be examined in anatomy, physiology, general chemistry, pathology, surgery, and obstetrics. Surely it is not unreasonable to exact for everyone who proposes to undertake to prevent, cure or alleviate disease and pain some knowledge of the nature of disease, its origin, its anatomical and physiological features, its causative relations, and of the preparation and action of drugs. At any rate, the State, in order to guard the people against the effects of imposition or ignorance, had the right to exact such knowledge."

In State vs. Marble, 72 Ohio St., 21; 70 L. R. A., 835, the court said:

"To admit that the practitioner may determine what treatment he will give for the cure of a disease, and that the state may examine him only respecting such treatment, would be to defeat the purpose of the Statute, and to make effective legislation of this character impossible."

Commonwealth vs. Jewelle (1908), 199 Mass., 558; 85 N. E., 858, is a strong authority in our favor because the statute in question therein in express terms excepted from its operation osteopathists (as is also the case in the Michigan Medical Act); and it excepted also pharmacists, clairvoyants, magnetic healers and a number of other special practitioners. And yet, in spite of the self-imposed limitations of the statute, the Massachusetts Supreme Judicial Court declared that there was still a territory — included in the term "practice of medicine" and still not coming within the express exceptions of the statute—wherein might be included other systems of healing which eschewed the use of drugs, besides those so excepted.

The defendant in that case had been convicted of practicing medicine without being lawfully authorized, and the decision of the Supreme Judicial Court depended on the correctness of certain charges of the trial court. In considering these, the court refused to be bound by the narrow definition of "practicing medicine" which the defendant urged on it, and says (page 85, 85th N. E.):

"The judge allowed the jury to find that one might practice medicine within the meaning of the statute, that is, might practice the healing art, or the art of science which relates to the prevention, cure or alleviation of disease, without necessarily prescribing or dealing out a substance to be used as a medicine. In this we think he was right. It would be too narrow a view of the practice of medicine to say that it could not be engaged in any case or class of cases otherwise than by prescribing or dealing out a substance to be used as a remedy. The science of medicine, that is, the science which relates to the prevention, cure or alleviation of disease, covers a broad field, and is not limited to that department of knowledge which relates to the administration of medical substances. It includes a knowledge not only of the functions of the organs of the human body, but also of the diseases to which these organs are subject, and of the laws of health and the modes of

living which tend to avert or overcome disease, as well as of the specific methods of treatment that are most effective in promoting cures. It is conceivable that one may practice medicine to some extent, in certain classes of cases, without dealing out or prescribing drugs or other substances to be used as medicines. It is conceivable that one may do it in other ways than those practiced as a part of their respective systems, by either "osteopathists, pharmacists, clairvoyants or persons practicing hypnotism, magnetic healing, mind cure, massage cure science, or the cosmopathic method of healing."

"The purpose of the statute seems to be to permit the practice of these several methods of treatment, including everything that strictly belongs to each other; but not to permit the unlicensed practice of medicine otherwise. If a practice of medicine otherwise, without dealing out or prescribing drugs or other substances to be used as medicine, is possible, the rulings and refusals to rule were right. We think that such a practice of medicine is impossible."

Hewitt vs. Charier (1835), 33 Mass. (16 Pickering), 353, another case from the same state, is one of the earliest cases in the country to consider this subject. It was an action of assumpsit for services in attempting to cure defendant's son of a contraction of the sinews of the neck; and the defense was that plaintiff had not been licensed by the Massachusetts Medical Society, nor been graduated as a doctor of medicine. It was admitted that plaintiff professed to practice no branch of the healing art except that of bonesetting, and reducing sprains, swellings and contractions of the sinews, by friction and fomentation. The Supreme Judicial Court of Massachusetts, in an opinion by that great jurist, Mr. Chief Justice Shaw, held that the plaintiff should be non-suited. The eminent Judge says (page 355):

"The first question for the Court is, whether, upon the facts agreed, the plaintiff can be held to be engaged in the practice of physic or surgery. It appears that he professes and practices bonesetting and reducing sprains, swellings and contractions of the sinews, by friction and fomentation; but no other department of the curing art. By bonesetting we understand the relief afforded as well in cases of dislocation, as in those of fracture. The Court are of the opinion, that this brings him within the meaning of the statute, as one who practices physic or surgery. We think it not necessary for one to profess to practice generally, either as a physician or surgeon, to bring him within the operation of this statute, but that it extends to anyone engaging in practice in a distinct department of either profession, and that the plaintiff's practice forms a considerable department in the practice of surgery."

Commonwealth vs. St. Pierre (1899), 175 Mass., 48; arose on a complaint under the registration act alleging that defendant "did hold himself out to the public as a physician and surgeon" without being duly registered as a physician. The verdict was guilty; but the supreme judicial court of Massachusetts sustained exceptions to the exclusion of certain testimony offered by defendant on cross examination. The court said, however (page 50, 175 Mass.), "As the questions involved in the other exceptions may arise in a new trial, they may be briefly disposed of here;" and it lays down this rule:

The ruling that if the defendant held himself out as an eye specialist he held himself out as "one who devoted himself to a branch of the healing art, which is the profession of the physician and surgeon," that "if the defendant held himself out as an eye specialist he held himself out as a physician and surgeon, within the meaning of the statute" was correct.

These rulings, coming from so respectable an authority, are pertinent here to the points; first, that it is an offense against such a statute to practice either medicine or surgery without due registration, and secondly, that one who practices any branch or specialty, no matter how limited and narrow its range, of the science of preventing, healing and alleviating disease and injury is practicing medicine and surgery within the meaning of such a statute as that under consideration.

People vs. Alcutt (1907), 102 N. Y. Suppl., 678; 117 App. Div., 546 (affirmed in Court of Appeals in 189 N. Y., 517; 81 N. E., 1171), we have already referred to at length. As we then showed, its effect is to completely discredit and overrule the earlier case of Smith vs. Lane, 24 Hun., 632, one of the cases that first gave rise to that narrow interpretation of these medical acts which failed to comprehend the full import of the legislative purpose in passing them. In speaking of that case the supreme court, appellate division, first department, said:

"We do not consider the remarks of the learned judge, above quoted, as being an exhaustive or exclusive definition of the term 'practice of medicine.'"

And on page 680, the court says, in a passage which we have before quoted:

"To confine the definition of the words 'practice of medicine' to the mere administration of drugs or the use of surgical instruments would be to eliminate the very cornerstone of successful medical practice, namely, the diagnosis. It would rule out of the profession those great physicians whose work is confined to consultation, the diagnosticians, who leave to others the details of practice. The correct determination of what the trouble is must be the first step for the cure thereof. It may be difficult by a precise definition to draw the line where nursing ends and the practice of medicine begins, and the court should not attempt, in construing this statute, to lay down in any case a hard and fast rule upon the subject, as the courts have never undertaken to mark the limits of the police power of the state, or to have precisely defined what constitutes fraud. What the Courts have done is to say that given legislation was or was not within the limits of the police power, or that certain actions were or were not fraudulent."

This case, it will be remembered from our former reference to it, is the one in which the defendant practiced "mechano-neural therapy," or mechanical nerve treatment, by means of manipulating various parts of the body, but principally the spine, with the ends of the fingers, "a touching sensation, nothing like kneading;" the theory of the system being that disease was caused by lack of blood-circulation.

After citing in its opinion most of the cases, both favorable and opposed to its views, the New York court concludes:

"We are of the opinion, from the general current of the authorities throughout the country, and from examination of the history and growth of our own public health statutes, that we should not apply the rule as claimed to have been laid down in Smith vs. Lane. When we find, as in this case, a defendant holding himself out by sign and card as a doctor, with office hours, who talks of his patients and gives treatments, who makes a diagnosis and prescribes diet and conduct and remedies, simple though they be, and who asserts the power to cure all diseases that any physician can cure without drugs, and also diseases that they cannot cure with drugs, and who takes payment for a consultation wherein there was an examination and determination of the trouble, that is, a diagnosis, as well as payment for subsequent treatment, even if no drugs are administered, we must hold that he comes within the purview of the statute prohibiting the practice of medicine without being lawfully authorized and registered."

The case of Bandel vs. Dept. of Health of City of New York (1908), 193 N. Y., 133, decided by the highest court in New York, strengthens the New York decisions as authorities in our favor. That case arose on an application by an osteopath for a peremptory writ of mandamus against the department of health of the city of New York to compel his registration as a physician. The sanitary code of the city required "every physician" to register his name with the Department of Health; it provided that "no interment of the dead body of any human being should be made without a permit from the Board of Health; and it further provided that "physicians who have attended deceased

persons in their last sickness shall make and preserve a registry of such death, etc. It appeared that no permit to bury a body would be issued except on presentation of the certificate and record of death made by a physician pursuant to the sanitary code.

Bandel had been denied registration as a physician and the effect of such denial was that, as he could not obtain a burial permit, the body of a person who died while under his care could not be buried until after a coroner's inquest.

The court of appeals in affirming the order granting a peremptory writ held that, reading the city sanitary code and the state medical registration law of 1907 together, it was "manifest that a duly licensed osteopath is a physician within the meaning of both." That medical act provided that persons practicing osteopathy should be licensed to practice osteopathy. But it provided further that "a license to practice osteopathy shall not permit the holder thereof to administer drugs or perform surgery with the use of instruments. Yet under the statute the court held that an osteopath "practiced medicine;" therefore, he was "a physician;" and, therefore, he was entitled to registration by the City Department of Health. Thus it is plain that this decision adds one more stone to the foundation of liberal statutory construction on which our contentions rest. It is true that the New York act of 1907 construed in the Bandel case, declares very briefly what it means by "to practice medicine;" but examination will show that this definition does not add to nor substract from the words one shade of meaning that they did not already, naturally and without express statutory definition, bear.

We have already had occasion to refer to the decisions on this subject in Iowa, and will only briefly call attention to them again. In State vs. Heath (1904), 125 Iowa, 585, defendant had been convicted of practicing medicine without a certificate. He had advertised: "Cancer Specialist and Magnetic Treatments," with a long list of diseases he cured. His method was "magnetic treatment," but he had not in fact treated any person in the country as a doctor or physician or osteopath, and had not received any fee for future treatments. It was admitted, however, that he expected to charge fees for treatments, should he have any patients; and, on the other hand, that he did not pretend to use any medicine or drugs, or resort to any form of surgery. The trial court directed a verdict of acquittal, and entered judgment. On appeal by the state, the judgment was reversed by the supreme court of Iowa, on the ground, chiefly, that he had "publicly professed to cure or heal." In its discussion of the validity and construction of the medical act the supreme court says (page 431, 101 N. W.):

"The statutes do not attempt to discriminate between different schools of medicine or systems for the cure of disease. No method of attempting to heal the sick, however occult, is prohibited. All that the law exacts is that, whatever the system, the practitioner shall be possessed of a certificate from the State Board of Medical Examiners, and shall exercise such reasonable skill and care as are usually possessed by practitioners in good standing of that system in the vicinity where they practice. This excludes no one from the profession, but requires all to attain reasonable proficiency in certain subjects essential to the appreciation of physical conditions to be affected by treatment. The object is not to make any particular mode of effecting a cure unlawful, but simply to protect the community from the evils of empiricism. Often the individual alone suffers from the want of proper attention, but in cases of contagious or infectious diseases the entire community may be endangered. In no profession, occupation, or calling are the people more easily or readily imposed on."

And the opinion concludes:

"In the instant case it conclusively appears that the accused professed publicly to heal a great variety of ailments, and so did for the purpose of procuring patients and treating them. The question of his guilt should have been submitted to the jury."

State vs. Edmunds (1904), 127 Iowa, 333, was decided at the same term of Court. Defendant was indicted for practicing medicine as an itinerant physician without a license. His demurrer to the indictment was sustained; but on appeal by the state, the Supreme Court held this to be error. The indictment charged that defendant attempted "to heal and cure diseases by dieting his patients, and causing them to take certain exercises and to wear certain glasses furnished by him, etc. The Supreme Court in reversing the judgment of the trial court said (page 433, 101 N. W.):

"To save its people from quacks and charlatans, the state has plenary power to prohibit or supervise the exercise of the healing art. Our Legislature evidently intended to prohibit the practice of the healing art by the use of medicine or any kind of appliances or methods, except upon certain named conditions."

To the same effect, see also, State vs. Adkins (1910) Iowa, 124 N. W., 627, and State vs. Wilhite (1906), 132 Iowa, 226; 109 N. W., 730; 11 A & E Ann Cases, 180.

In State vs. Yegge (1906), 19 S. D., 234, defendant had been convicted of practicing medicine without a license. In affirming this conviction the supreme court of South Dakota said:

"It is contended by the plaintiff in error that the evidence was insufficient to warrant his conviction, in that it failed to show that he was practicing or attempting to practice medicine within the provisions of the act of 1903, and that he was simply engaged in the business of fitting glasses to the eye. It was proven by the evidence of Dr. McNutt, secretary of the board of medical examiners, that no license had been granted to the plaintiff in error. The state then introduced in evidence the following notice, marked 'Exhibit 1': 'Ophthalmology. A science for the analysis of the cause of human ills and how to abolish them. Everybody should know that this is a science that practices by guesses. It differentiates between functional derangements and disease. By its assistance nature cures cross-eyes, without operation; headache without drugs; hysteria without a straight jacket; female disorders without a trip to the hospital; and hundreds of nervous troubles. Simply removing causes is the secret. A true Ophthalmologist explains your case to you. Dr. M. F. Yegge;' There was also evidence tending to prove that the plaintiff in error had a sign in front of his office with the name 'Dr. Yegge' thereon. There was also evidence tending to prove that ophthalmology is the science which treats of the physiology, anatomy, and diseases of the eye; any abnormal condition of the eye should be considered as a disease; that it is so considered by the profession; and that the fitting of glasses for the relief of defective eye-sight is a branch of the practice of medicine."

And in conclusion the court rests its decision on this sound canon of construction:

"The law should not be so construed as to deprive the people of the benefits intended by the act, but such a construction should be given it as to carry into effect the evident intention of the Legislature."

Ex parte Collins (1909), 57 Texas Crim., was an application for a writ of habeas corpus. From an order remanding relator, he appealed, but the court of criminal appeals of Texas affirmed the order. Petitioner had been arrested for practicing medicine without license; he was an osteopath. The information alleged that Collins had treated a patient for hay-fever by osteopathy, "which system consists . . . in manipulating scientifically the limbs, muscles, ligaments and bones of the human body, . . . which pressed on the nerves of the blood-supply, so that Nature might have free action, the natural blood-supply restored and the diseased condition thus removed." The upper court held that such treatment constituted the practice of medicine under the Texas statute.

But the relator raised the further point that the word "medicine" as used in Texas constitution where it says that the legislature may regulate the practice of medicine, etc., limited the power of the legislature; and that relator did not come within the provisions of the act, because in practicing osteopathy he used no medicine. The court, however, refused to adopt such a narrow-gauge construction of the word, and said:

"The Constitution, when it demands the regulation of the practice of medicine, was not attempting to say that the Legislature was limited to any mode or method of healing in order to regulate it; but the word "medicine," used in the Constitution means the art of healing by whatever scientific or supposedly scientific method may be used. It means the art of preventing, curing or alleviating diseases, and remedying, as far as possible, results of violence and accident. It further means something which is supposed to possess, or some method which is supposed to possess, curative power."

The later case of Newman vs. State (1910) Texas; 124 S. W., 956, re-announces the principles laid down in the Collins case, and also quotes with approval a long extract from the opinion in People vs. Allcutt N. Y. Supplt., 678.

Little vs. State (1900), 60 Neb., 749, is another case in which a practitioner of osteopathy was convicted of practicing medicine without a license. The Nebraska supreme court affirmed the judgment. Defendant's treatment consisted principally of "rubbing, pulling and kneading with the hands and fingers certain portions of the bodies, and flexing and manipulating the limbs of those afflicted with disease, the object of such treatment being to remove the cause or causes of trouble." Defendant urged, among other things, the proposition that such treatment did not fall within the definition of a practitioner of medicine as found in the statute; the words referred to being "who shall practice medicine in any of its branches, or who shall treat or attempt to treat any sick or afflicted person by any system or method whatsoever." The court said, however, that it was "of the opinion that those who practice osteopathy for compensation come within the purview of the statute as clearly as those who practice what is known as "Christian Science," and therefore this case falls within the principle of State vs. Buswell, 40 Neb., 158. Continuing the court said:

"With the rule announced in that case we are fully satisfied, although it is possible that the decisions of some other courts are in conflict with it. The doctrine declared in that case will carry out the legislative intent, and effect the object of the statute, which is to 'protect the afflicted from the pretensions of the ignorant and avaricious....' In construing statutes effect should be given to the intention of the legislature. It is argued that osteopaths do not profess to treat any physical or mental ailment, but that they merely seek to remove the cause of such ailment or disease, and therefore do not come within the definition mentioned. The writer is not deeply versed in the theory of the healing art, but he apprehends that all physicians have the same object in view, namely, the restoring of the patient to sound bodily or mental conditions; and, whether they profess to attack the malady or its cause, they are treating the ailment as the word is popularly understood."

Chiropractors make the same bald assertion that they do not attempt to cure disease, but remove or adjust the cause of disease. This is nothing more than a specious jugglery of words—a mere shallow pretense that should deceive no one. Merely to say that chiropractors "remove causes of disease" while other practitioners "cure diseases" (assuming, for the time being that they do not profess also to "remove causes of disease") does not prove a difference. The test is to look at what each practitioner actually does, not at what he says he does; and it is the silliest nonsense to contend for a moment that the regular practitioners do not try to ascer-

tain the cause of each physical disturbance and then to remove the cause. To attempt to make a distinction on this ground is indeed to become a mere juggler of phrases.

State vs. Buswell, 40 Neb., 158, is a Christian Science case, and has already been sufficiently referred to. We pass it here with the remark that it is one of the earlier cases that laid down a broad rule of construction for acts regulating the practice of medicine.

Witty vs. State, 90 N. E., 62, is a case in which defendant had treated a man for rheumatism or lumbago by what defendant denoted as "suggestive therapeutics," the treatment consisted of rubbing the spine, groin and back, and no medicine was given. The patient admitted, as a witness, that this treatment had been beneficial; yet the defendant was convicted. The conviction was affirmed by the Indiana supreme court, which said:

"The mere fact alone that in his practice he did not use drugs in any form whatever as a medicine to cure or heal the many diseases which he professes to successfully treat did not place him, in the eyes of the statutes within its meaning, in the position of one not engaged in the practice of medicine."

And on page 1901:

"If he under the facts of this case, could be held as not coming within the provisions of the statute, then any person unlicensed to practice medicine might hold himself out to the public as a doctor, and treat all classes of diseases without administration of drugs, and not offend against the statute in question. Such a construction would be inconsistent with its letter and spirit. The very object or purpose of the statute in question is to protect the sick and suffering and the public at large against the ignorant and unlearned."

A magnetic healer who used no drugs was convicted and his conviction affirmed in another Indiana case, Parks vs. State (1902), 159 Ind.. 211. The Indiana supreme court said:

"It is our conclusion that appellant was engaged in the practice of medicine, since he held himself out as a magnetic healer, and his method of treatment was, at least in part, the method that medical practitioners sometimes employ."

Defendant also seems to have urged that his treatment was nursing rather than practicing medicine; but the court was not impressed with that plea, and quoted the language of People vs. Gordon, 194 Ill., 560; "Merely giving massage treatment or bathing a patient is very different from advertising one's business or calling to be that of a doctor or physician, and, as such, administering osteopathic treatment. The one properly falls within the profession of a trained nurse, while the other does not."

O'Neill vs. State, 115 Tenn., 427, has already been referred to. In that case defendant had treated patients by the application of certain rays of light and was convicted of practicing medicine without a license. The supreme court of Tennessee, in affirming the judgment, said:

"Surely it is not unreasonable to demand of everyone who professes to treat disease some knowledge of the disease, its origin, its anatomical and physiological features, and its causative relations, and the effects of drugs. At any rate, the state, in order to guard the people, had the right to exact such knowledge."

And it quotes with approval the language of the court in People vs. Phippin, 70 Mich., 5:

"There is no good reason why restraint should not be placed upon the practice of medicine, as well as upon the practice of law. The public are more concerned in this than in the practice of law, and persons who engage in this profession require a special education to qualify them to practice. The great majority of the public know little of anatomy of the human system, and the nature of the ills that human flesh is heir to, and there is no profession, no occupation, or calling, in which people may be more readily imposed upon by charlatans."

There are a few cases that hold to the contrary. They are all distinguishable because of the different wordings of the statutes or because in some states they do not recognize the right of the legislature to regulate the practice of medicine to the exclusion of anyone.

The most recent case in our favor is State vs. Smith, 33 L. R. A., 179.

This was a chiropractic case and the court reviews many authorities to reach the conclusion that chiropractic comes within the medical act. Their act is in terms broader than ours because it uses the words treat the sick, but I believe the words practice medicine includes treat the sick.

It is a serious question whether defendant would not come within the original statute as one practicing medicine or surgery. The practice of medicine is not confined to the administration of drugs; nor is surgery limited to the knife. When a physician advises his patient to travel for his health, he is practicing medicine, Broadly speaking, one is practicing medicine when he visits his patient, examines him, determines the nature of the disease, and prescribes the remedies he deems appropriate. Bibber vs. Simpson, 59 Me., 181. Tested by this rule, the defendant was practicing medicine when he examined the patient's back, determinded the trouble to be that a vertebra was subluxated, thereby impinging a nerve, and proceeded to employ what he considered an appropriate remedy viz.: a sudden downward pressure with the fingers, thereby adjusting the vertebrae and relieving the impingment. When the defendant says that he does not "treat," but "adjusts" and that he deals not with the disease but with the cause, he is merely juggling with words. Changing the name does not change the thing.

The defendant cites several cases to support his contention that the Missouri statute does not include a practice which eliminates drugs and surgical instruments.

Two cases from North Carolina hold under a statute which prohibits practicing medicine or surgery without a license, that an osteopath, and also one who treats by "massage, baths, and physical culture, manipulates the muscles, bones, spine and solar plexus, and kneads the muscles with the fingers of the hand.... writes no prescriptions as to diet, but advises his patients what to eat and what not to eat; all the above treatment, is administered to the exclusion of drugs" are not included. These cases proceed upon the doctrine that the legislature exceeds its power when it prohibits treatment of disease by any except a licensed doctor, and they are therefore not in point under the immediate discussion.

The next case cited is State vs. Liffring, 61 Ohio, 39, which holds that an osteopath is not within a statute which provides that any person shall be regarded as practicing medicine who shall for a fee prescribe or direct any "drug, medicine, or other agency for the treatment, etc." that the doctrine of *ejusdem generis* limits the word "agency" to drugs or medicines; and that osteopathy is not such an agency. This statute was subsequently amended so as to read: "Who shall prescribe any drug, medicine, appliance, application, operation, or treatment of whatever nature." In State vs. Gravett, 65 Ohio, 289, it was held by the same Judge who rendered the opinion in the Liffring Case to include osteopathy.

The Court said that the Legislature in this amendment had "attempted a comprehensive regulation of the practice of the healing art." This same statute was held in State vs. Marble, 72 Ohio St., 21, to include Christian Science.

The next case cited is Bennett vs. Ware, 4 Ga. App., 293. That case involved a healing solely by supernatural or divine agency—by a "magic power direct from the Lord," and is therefore not in point.

So also is the case of State vs. Mylod, 20 L. R. A., 632, not in point, where it was held that Christian Science was not within the Statute forbidding the "practice of medicine and surgery" without a certificate from the board of health.

Smith vs. Lane, 24 Hun., 632, holds that a system of rubbing, kneading and pressure performed with the hand was not within a statute which penalized "the practice of medicine or surgery," without a license. This case is expressly overruled by the case of People vs. Allcutt, supra, which later case states that the doctrine of Smith vs. Lane, and of cases that follow it, is opposed by Massachusetts, Maine, Michigan, Iowa, Missouri, Colorado, Nebraska, Illinois, Ohio, Alabama, Indiana, New Mexico, South Dakota and Tennessee which "refuse to

restrict the 'practice of medicine' to the administration of drugs or the use of surgical instruments." In the Allcutt case the defendant described his system as "mechano neural therapy" which meant mechanical nerve treatment, a gentle pressure on all parts of the body; that the whole theory of this science is that disease comes from lack of blood circulation, and that the treatment proceeds upon the theory of assisting the circulation back into normal condition. The analogy here to the "science" practiced by the defendant at bar is obvious.

Hayden vs. State, 81 Miss., 291, rested upon a statute similar to the original Ohio statute. The court followed with Liffring and Mylod cases, supra, but said that its own views would point to a different conclusion if followed. The holding was that osteopathy was not an "agency" within the meaning of the statute.

Nelson vs. State Bd. of Health, 108 Ky., 769, holds that a statute which forbids one to "practice medicine, or attempt to practice medicine, in any of its branches, or who shall treat or attempt to treat any sick or afflicted person by any system or method whatsoever," does not include an osteopath. This ruling, however, is put upon the ground, as was said in Allcutt case, supra, that it would be beyond the power of the state to prevent the practice of osteopathy, and therefore it would be presumed that the legislature did not intend to include it within the statute, a doctrine which does not prevail in this state.

We do not desire to extend this opinion by citing on this point numerous cases which hold contrary to the defendant's contention. Some of them are Parks vs. State, 159 Ind., 211; State vs. Yegge, 19 S. D., 234; 69 L. R. A., 504; Bragg vs. State, 134 Ala., 165, and State vs. Buswell, 40 Neb., 158.

In the case of Davidson vs. Bohlman, 37 Mo. App., 576, Davidson was seeking to recover for services rendered in giving electrical treatment. The defense was that Davidson was practicing medicine without a license. It was urged in his behalf that the services rendered were not medical. He held a diploma from an electric medical college. Judge Thompson speaking for the court, in denying Davidson's contention, said: "the obvious intention of the statute was to embrace any person who habitually holds himself out as a professor of the art of healing diseases."

In the main, the cases regard diagnosis as the test to determine whether a practice or treatment is included in the terms "medicine and surgery." This is a practical test. A doctor who advises his patient to sleep in the open air is treating him. Such advice, however, is based upon a knowledge of the patient's condition obtained by diagnosis. The defendant professed to be able to ascertain by examination of the patient the cause of his trouble, a result rather beyond that which ordinarily attends the diagnosis of the regular practitioner. The method or extent of the examination is not the controlling feature. When the practitioner makes such examination of the patient as he regards as sufficient to indicate to him the cause of the trouble, and to indicate its proper treatment, he has diagnosed the case.

With this discussion I rest my case, I believe that under the rules laid down in the case of People vs. Phippin in Michigan, the court would have to follow the lead of the other states to the conclusion which I have tried to demonstrate, and which I might summarize as follows:

The legislature by the medical act has attempted to regulate all those who engage in the science of healing by whatever method. That this intention is evidenced by the legal and common meaning of the words practice medicine and surgery in all its branches; that chiropractic is one school of medicine; that it is not within the osteopathic act but is within the medical act, and consequently one who practices it without being licensed under the medical act of Michigan is guilty of a violation of that act.

THE NARROW NOSE*

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The following paper is based on a few cases only and of these but two have been done a sufficient time to be of any real value in drawing conclusions, one about two and the other nearly three years ago. In both the results have been good, but of course more time and a wider experience are necessary before one can hope to judge any method fairly, difficulties may arise now unthought of. This represents my present views, but is rather a preliminary report than a paper.

There is one group of cases of nasal obstruction which no septal operation nor turbinal trimming, short of complete functional destruction, will relieve. The nose is narrow and shallow, small in both vertical and transverse diameters. The palatal arch is high and narrow pushing up the floor of the nose and usually causing malocclusion of the teeth. The greatest narrowing is at the bony vestibule normally a narrow portion of the nose, so that it is easy to understand the marked obstruction. The probable cause of the condition is lack of development due to some form of obstruction in infancy or early childhood. Adenoids may be both a cause and an effect, establishing a vicious circle. They first produce obstruction; the nose does not develop, as it is not used; the mouth has to be kept open so that the jaw moulding, palate spreading effect of constant tongue pressure is lost. The infantile type of nasal chamber persists and the small postnasal space and lack of nasal drainage make a very small amount of adenoid enlargement of importance, and tends to still further aggravate the trouble. There is the naturally narrow type of face with poor jaw development and narrow nose. A condition perhaps due to mixture of races, perhaps to congenital conditions or injury, but probably more often to nutritional disturbances in infancy, to bad hygienic surroundings and lack of proper care. Thumb sucking and baby comforts probably aid in producing the condition by keeping up a prolonged passive congestion. The habit of mouth breathing, once established, is often hard to break, and may be a cause as well as an effect of the conditions enumerated.

In the adult the usual picture is to find the external nose fairly prominent, but with flattened pinched alae. It is as if what the nose lost in breadth it had to make up in length in many cases. The dilators are atrophied or have never become properly developed so adding to the obstruction. The septum has grown, but not having enough space becomes bent on itself and we have an "S" or crumpled septum. There may be spurs present or a good deal of septal thickening. Whatever the intranasal conditions, however, the prime factor is a contracted, undeveloped bony nasal framework, more or less of the infantile type. The external nose may be large, but the nasal chambers are small and narrow.

The best treatment is of course prevention, and the earlier we can begin the better. The infant should be watched for

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

symptoms of mouth breathing and the already gratifying interest of the more intelligent parents of the community stimulated and extended to the others. Adenoids and tonsils should be removed as soon as necessary and the patient carefully examined and in many cases sent to the orthodontist. We have not done our full duty in simply removing the adenoids. They are often only a small part of the trouble, but we must establish proper nasal breathing, proper jaw and consequently proper nasal development. This for the young patients.

In the older, those after early adult life we can do little. A submucous resection will straighten the deflection, but will help nasal breathing but slightly, if at all. The nose still remains narrow with collapsed alae. We can remove turbinal tissue and make room enough for air to pass perhaps, but then the function of the nose is largely destroyed, it becomes a mere hole in the face, and is apt to add nasal discomfort and crusting to the patient's earlier troubles.

All we can do in these cases is to make the patient as comfortable as possible with conservative and careful operative measures, treatment, and if possible a warm mild climate. We cannot hold out any hope of cure. After the time of prevention has passed—up to the age of 20, 25 or even sometimes 30—it is another matter. To Dr. G. V. I. Brown, of Milwaukee, I believe, belongs the credit of showing us that by spreading the jaw we can lower the arch and broaden the nose, so enlarging it in both vertical and transverse diameters. As the arch comes down the septum tends to straighten out, and in favorable cases spreading may be all that is necessary. In others it may need loosening up by a little rolling operation or in the cases with spurs, thickening or crumpled septa a submucous operation is indicated. Sometimes the arch will not descend because of the hold of the septum and it will be necessary to free it beforehand or during the spreading. Of course adenoids and enlarged tonsils should be removed and turbinal resection done if necessary before the spreading commences.

First prevention, insuring proper nasal use and development. Failing that we should use corrective measures as early as possible. In light-boned patients we may get fair results up to thirty, in heavier boned we may fail at twenty, but can usually get a few millimeters of widening up to twenty-five and it takes little to materially increase breathing capacity.

As the object of the work is to separate the superior maxillae and tilt down the palate, not primarily to move the teeth, an appliance must be used which will exert considerable force over a rather wide area and do the spreading quite rapidly. If moderate pressure is applied to one or two teeth they will move by causing bone absorption as the pressure is continued, but with no tendency to spread the jaw.

This is just where we are apt to have trouble with the orthodontist. Straightening the teeth and correcting the bite is of importance, but not until after the necessary widening has occurred. It should follow, not precede our work, and will probably often be necessary in holding the results gained and making them more nearly perfect. We cannot get along without the orthodontist, but neither can he replace us. His idea is to pull the teeth into place and to shape the jaw as he does it, and it is sometimes nearly impossible to make him put in jack-screws with good bearing on three or more teeth on a side and then turn them fast enough to cause from 1/8 to 3/8 of an inch separation in from two weeks to a month. The teeth can be pulled into place later, but will often place themselves as the jaw is

pushed out so that they have room. The premaxillae will project for some time in a few cases, but the pull of the lips and tongue pressure constantly tend to place them. These are the orthodontist's problems, however, not ours, and they must not be allowed to interfere with the restoration of nasal respiration.

I have tried to devise an instrument which would make us independent of the dentist, but have failed. There are so many shapes of mouths, and the teeth often are on such a slant that no appliance will hold unless fitted to the teeth, and then cemented on. The main thing is to get a good bearing on three or four teeth on each side, in most cases the canine being the anterior one, for one or two jack-screws. If one jack-screw is used it should be placed well forward, as the suture is strongest anteriorly. The patient will complain of a good deal of discomfort, and some pain at first, and may rebel altogether, but after the first few days this passes off and the jack-screws can be tightened quite rapidly. The central incisors will separate and when this separation is from 1/8 to 1/4 inch the spreading should cease, but the appliance be worn for a time. The palate should be descending and if not it may be necessary to free the septum. In old patients we cannot expect to produce a low arch, but only a partial descent as there would need to be separation of about an inch to bring a high arch down by rotation only, but every millimeter we gain increases the diameter of the nose very materially and we have the widening to consider also. The area of an opening of this shape increases practically as the square of the diameter.

The jack-screws used are those ordinarily furnished by the dental supply houses. They are best applied to a stiff metal bar with bands for holding it to the teeth on each side. If applied to a split plate there is apt to be ulceration of the gums and the arch of the plate must tend to some extent, even when well cut down, to hinder the descent of the arch of the palate. There is a tendency for the separation to close when the appliance is removed. A plate may be used to prevent this, but is open to the objection given above. It is best to let the patient wear a single jack-screw applied to two opposing teeth which are too far in, or an appliance with one crossbar placed well forward, so as to interfere with mastication as little as possible. During the spreading it is often necessary to keep on a soft diet at first. The patient will be able to do most of the tightening of the screws after the first few days. If the septum hinders the descent of the palate an Asche forceps, or I think better the little instrument I have demonstrated, because the break is limited to the space between the jaws, or a submucous operation may be necessary. The submucous is always best if there is septal thickening.

Tracings may readily be taken with a strip of lead, but a cast of the mouth is better and is very easy to do. For the condition of the septum and the size of the nasal opening a septometer is convenient and will show the progress of the case with fair exactness if the same points are chosen each time in making the measurements.

The bite can be corrected by an orthodontist at the close of the spreading or during the later stages.

In closing, this paper is offered in the hope of perhaps stimulating interest in a method that promises much. It is not applicable to every case of nasal obstruction, but to one class only. Time and the experience of many observers can alone show its true value.

THE TREATMENT OF ACUTE APPENDICITIS*

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I take this opportunity to thank you for the honor conferred on me by electing me your chairman for the past year. I have attempted to faithfully perform my obligations, and hope that the other sections have had as congenial fellow associates as the surgical.

In casting about for a theme for the chairman's address, I have thought that a practical subject would be of most value, and will ask you to consider "Some Phases of Acute Appendicitis."

Ever since Fitz first put appendicitis on a scientific basis it has occupied and still occupies a prominent place in surgical literature. In spite of the fact that it has been considered from all standpoints by leading surgeons, internists and pathologists, and that we have come to believe that all have a mutual understanding as to its proper treatment we are still confronted by the fact that appendicitis and its improper treatment carry yearly thousands to an untimely grave. We ask ourselves what is the exact status of appendicitis? Our own may be as definite and precise as the disease, but how is the unfortunate patient treated in some communities? We may safely say that it is a dangerous thing to contract such a disease unless the attendants are aware of its complications.

DIAGNOSIS

In a consideration of diagnosis of acute inflammatory diseases in the lower abdomen we may first of all rule out appendicitis before making a positive diagnosis. And if such were always the case many cases would be detected before allowed to rupture. The common symptoms consequent to an attack of appendicitis are well known, but often overlooked, or if recognized are not given their proper importance. Mistakes are due to negligence and indifference more than to ignorance. A routine method of examination will avoid many mistakes. A careful written history of every patient will tend to curb snap-shot diagnosis.

Why are so many mistakes made in diagnosis in this disorder? Mostly, I believe, due to improper examination. Is there anything in common with primary appendicitis? The pathology of the abdomen is so well known that we must no longer accept stomach trouble as a disorder *per se*. We must endeavor in all cases which come under our observation to review the history from the very beginning. Patients often give wrong impressions and unknowingly cover important truths, and it remains for us to obtain complete histories.

Acute or chronic disease of the appendix causes symptoms often referred to its position, to the pathology incident to many repeated attacks or as the results of complications arising from severe inflammation.

In at least 40 per cent. of our cases we do not find the appendix at McBurney's point. It may be due to undescended cecum, and hence cause symptoms referred to gall-bladder region or stomach, may be

* Chairman's Address at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

in median line or on the right side, behind the cecum or low in the pelvis. Often the position has much to do with symptoms. One must not forget that we may have pathologieal changes in other organs which may complicate atypical cases. Among these are ureteral or kidney stone, tubal infection, adhesions due to duodenal ulcers and inflammation around the gall-bladder tract. Such conditions may accompany as well as complicate appendicitis, and a differential diagnosis should always be attempted. What may we expect as symptoms in acute primary appendicitis? We have noted with more or less regularity the following:

Vomiting or Nausea.—This symptom has occurred within the first twenty-four hours in about 75 per cent. of cases.

Pain.—Pain occurs usually from four to eight hours after the first symptom and in over 50 per cent. of cases is referred to the stomach. However, if examination is made at this time the tender area will be found over the appendix.

Rigidity. — This is the one reliable symptom, and is always present except in the extremely mild cases. When present, it is the one symptom which must be respected. The rigidity varies with the severity of the case. We have repeatedly made diagnosis from history of the case and this symptom. In the fulminating cases, in which gangrene and perforation takes place within a few hours after onset of symptoms, the rigidity will be especially marked.

Fever.—A rise in temperature to 99° or 100° is to be expected in ordinary cases, however this should never be relied on. In the severe cases the temperature is often subnormal.

Pulse. — We usually have increased pulse-rate, this taking into consideration the other symptoms is a valuable aid in determining the severity of the case, but of no value in diagnosis.

Blood-Count. — For several years we have found the differential blood-count of extreme value in making differential diagnosis. Not only is this of value in differential diagnosis, but also of aid in prognosis. In the severe gangrenous cases we will often have a count of 90 per cent. within twenty-four hours of onset of cases, in the moderate cases the count usually ranges from 75 to 82 per cent. One should never advise depending on blood-counts.

Bloating.—Bloating means in 95 per cent. of cases that the inflammation is extending beyond the appendix. Chills and sudden relief from pain means as a rule that the appendix has perforated and that peritonitis is extending.

TREATMENT

We know of no medical treatment at the present time, the only certain cure is removal of the offending member. Unless there are special contra-indications against such, the appendix had better be removed as soon as the diagnosis is made. By so doing many lives will be saved. In some communities it is yet a dangerous thing to contract such a surgical disease as appendicitis. Death in this disease is usually due to incorrect diagnosis, and consequently improper treatment, or to neglected cases, in which the physician is not called in until late in the course of the disease; or to the fulminating cases, when unless the treatment is prompt we have death following quickly on rapidly increasing severe symptoms. In early cases, before perforation takes place, or interval cases, the mortality is practically *nil*, and should be so. In cases with abscess and peritonitis the mortality increases with delay.

There are several cardinal principles which should be laid down in the treatment of appendicitis, some of which are sadly neglected. First is absolute rest of patient and bowel. Absolutely no laxative or cathartic should be given in a suspected case after four or five hours from the onset of the first symptoms. Our experience shows this to be the worst possible treatment. No morphin or other anodyne until diagnosis is made and treatment is decided on.

In cases with vomiting gastric lavage and low enemata aid greatly in reducing peristalsis and are of great value. Elevation of the head of the bed will be of value in keeping the inflammation in the lower abdomen. An ice cap over appendix is useful to lessen pain. Saline per rectum is the best stimulant.

Usually the appendix does not rupture within twenty-four hours after onset of the symptoms and great risk is avoided if all cases at all severe could be operated on within that time. We have had several cases rupture within twelve hours after the first symptoms. In such gangrenous cases every hour's delay is dangerous. In all cases the treatment is to operate as soon as possible, if circumstances will permit.

A few years ago many surgeons did not operate excepting during the first twenty-four to forty-eight hours, believing it unsafe to operate in the cases of beginning general peritonitis, in such cases waiting until abscess would become localized and distention lessened. Our experience proves that this is a very unsafe method to follow, and while it may do in a few cases, in others the larger majority will pass beyond the stage when surgeons would be of any avail. In all cases in bad condition and those with peritonitis the operation and anesthetic will need to be very brief. Many such are better operated under local anesthesia, or with gas and oxygen.

Should the appendix be removed in all cases? We remove the appendix many times in cases of perforation when formerly we were satisfied with drainage. We do not believe it has made much difference in our mortality. By removal of appendix if it be possible we have found the convalescence shorter and the immediate danger of secondary abscess less. We never search more than two or three minutes for the appendix in severe cases, but with larger incision than in ordinary cases prefer to remove it.

In cases with general peritonitis, with great distention we believe colostomy performed at the time of operation has saved many lives. In all abscess cases we use both tube and gauze drainage, in cases with general peritonitis we usually drain through several stab wounds.

Last year we operated on sixty-seven cases with ruptured appendix, complicated with local and general peritonitis with a total mortality of nine, or 7 per cent.; in over 200 cases which had not ruptured our mortality was *nil*.

It would seem that the laity should be taught by some means, that it is dangerous to neglect acute abdominal pain. Many times the family physician is not called in until the appendix has perforated. In such cases his patient will need emergency surgery, costly nursing and, if he lives, will have a prolonged convalescence.

People should be taught that appendicitis is dangerous if left alone, or treated expectantly, that repeated attacks predispose to complications, and that prompt cooperation must be sought by all concerned if we do our full duty.

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PNEUMONIA*

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According to the *Monthly Bulletin of Vital Statistics* of our state, pneumonia exceeds any other disease as a cause of death, and recent statistics from the cities of Chicago and New York show that pneumonia has superceded tuberculosis as the cause of greatest mortality.

This does not tell the whole story. From my experience as health officer, I am satisfied that the disease is far more prevalent than the reports would indicate. The facts are that only the more severe forms and those that are likely to prove fatal are reported.

From the fact that it is so fatal and prevalent, it behooves us, as members of the medical profession, to give it more than ordinary attention.

I shall limit myself, in this paper, to the consideration of acute lobar pneumonia, viz. that of bacterial origin; neither shall I burden you with a description of the disease. We will first notice some of the obscure symptoms and irregular forms of the disease; then give a history of a few cases by way of illustration and follow by a line of treatment and diet.

In some cases there may be the initial chill and high temperature without any general or local symptoms to indicate the seat of the disease. In other cases the initial symptoms may be present and the crisis come earlier than usual.

Case 1.—On April 12, 1903, Mr. S., aged 24, was taken with a severe chill followed by a temperature of 105 F. There was no pain or other local manifestation. On the 14th I discovered a small area of dulness in the upper lobe of the left lung and a slight expectoration of the rusty sputum. The temperature continued high till the fifth day when the crisis came and the temperature dropped to normal. The patient was able to resume work in a few days.

Case 2.—On Sept. 27, 1907, Mr. V., aged 30, was taken with a severe chill and pain in the right side. The temperature was 104.5 F.; respirations short and rapid, and every indication of a severe attack was present. On the third day, September 30, his temperature was still high, the pain in his side severe and a small area of dulness was perceptible in the middle lobe of the left lung. He also had the characteristic expectoration.

On the following day, Oct. 1, I found him dressed and sitting up. He had no pain or elevation of temperature and positively refused to return to bed. He said that he felt perfectly well with the exception of feeling a little weak. His recovery was uneventful.

Case 3.—On March 29, 1900, Miss W., aged 16, was taken with severe abdominal pains, especially in the right side. She also had an attack of diarrhea. The temperature was 104 F., pulse 120, and there was no cough or any other symptom which would indicate involvement of the lung.

Inasmuch as her condition seemed quite serious, I called Dr. Buskirk, of Shelby, in consultation. We could discover no local condition to account for the symptoms. Her condition remained the same until April first, three days after. At this time a small area of consolidation could be detected in the right lower lobe. She soon began to cough and raise the prune juice expectoration. The abdominal symptoms gradually disappeared and the typical course of croupous pneumonia followed.

Butler claims that the abdominal symptoms are due to the involvment of the diaphragmatic pleura and that it is the lower lobe or lobes that are involved.

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

I wish to present the history of another ease whieh was quite unusual.

CASE 4.—Mrs. P., aged 22, on Nov. 25, 1908, was taken with a typical form of lobar pneumonia with a temperature ranging from 103 to 104 F.—pulse 110 to 120—severe pain in the lower lobe of the left lung. On the seventh day the crisis occurred and the temperature returned to normal. She seemed in every way on a fair road to recovery. Two days later she was taken with a chill and pain in the right side and a repetition of the previous symptoms. The crisis came on the seventh or eighth day. Her convalescence was quite slow because of the severity and repetition of the attack.

TREATMENT

In the treatment of pneumonia we begin with small and repeated doses of ealomel until the intestinal traek is freed, then follow with one grain doses of phenolphthalein every four to six hours as needed during the eourse of the disease.

I begin early with small and inereasing doses of stryehnine as follows: gr. 1/60 every four hours until after the stage of congestion is passed, then the same dose every two hours. If the heart's action is rapid and weak, alternate with gr. 1/60 and 1/30 every two hours. Later in the course of the disease gr. 1/30 or more every two hours, if needed. It is more effeetual if given hypodermieally.

While one of the physiologieal effeets of stryehnin is to inerease the arterial blood-pressure, due to the stimulation of the vaso-motor eenters, it is not the only effect. It has a tonic effect on the heart muscles and its ganglia. By this means we prepare the heart for the extra and great task it has to perform. If the patient becomes restless from its use at any time, the dose should be diminished.

For a hypnotie, trional has proven, in my hands, to be far superior to any other drug in pneumonia. It is better to give it in five to seven gr. tablets every four to six hours than to give it in larger and less frequent doses. It also acts as a sedative and when used it is seldom neeessary to give an opiate.

Quinin gr. 2 every four hours can be given for its tonie and slight antipyretic effect. Expeetorants are seldom needed unless there is delayed resolution. If the eough is irritable and eauses pain, codine in suffieient doses every hour or two may be given. Loeal applieations of the hot water bottle are suffieient to ease pain in the majority of eases. The loeal use of eantharides for this purpose is a relie of barberism. The eontinued use of internal antipyreties should be diseouraged. Their depressing effeet overbalanees any slight benefit derived from their use. We have in water the par excellenee and nature's most abundant remedy for fever. What is more soothing to the patient than the paek or the sponging with water at the proper temperature? And what is more effieient? As a proteetive, a jaeket made of two thicknesses of white sheet wadding quilted on to eheese cloth is benefieial. It is light and will enable you to dispense with the burdensome amount of bed elothing usually found on the patient. Then open the doors and admit another God-given remedy, fresh air.

DIET

At one time in my practice I thought it was absolutely necessary to use quantities of whisky to tide my patient over the crisis. During the last few years our eounty has been "dry" and at times it has been deeidedly ineonvenient to procure the whisky, so it was neeessary to seek a substitute. I had been administering the liquid peptones to my typhoid and appendieitis patients with gratifying results, so I was led to use it in pneumonia, and it has not disappointed me there. I preseribe it in dessert to one tablespoonful doses every three or four hours. Or it can be

given with the normal salt solution per enema if the stomach does not tolerate it.

The peptones fill an important place in sustaining the vital forces from the fact that they are so readily diffusible and so quickly taken up by the circulation. It is generally supposed that the leukocytes absorb the peptones and act as their carriers. The peptones also have a tendency to lower blood-pressure. The liquid peptones contain from 20 to 30 per cent. of alcohol. The alcohol not only serves as their preservative, but also acts temporarily by being oxidized as a source of heat, and so lessens the consumption of the tissues of the body. Egg albumen combined with orange juice can be added to the diet providing it agrees with the patient.

At this point I wish to introduce the history of a recent case.

Mr. B., aged 48, was taken sick with pneumonia, June 26, 1912. He is a man addicted to the immoderate use of intoxicants and just previous to this attack he had been having one of his debauches.

He was taken with a light chill and severe pain in the lower portion of the right lung. I was not called until the following day, June 27. I found a large blister over the seat of the pain as a result of the application of kerosene. His temperature was 103.4 F.—pulse 100—very tense and sclerotic—respirations 30 and each respiration was accompanied by a groan. His tongue was heavily coated and his breath was very offensive.

On June 28 by auscultation near the seat of the pain, distant bronchial respiration could be discerned. On the following day small crepitant râles were discernible in the lower lobe of the right lung, also consolidation. He had a slight cough and a scanty expectoration of the rusty mucus.

The following treatment was given. I administered five gr. of calomel, followed by phenolphthalein gr. 1. Within twenty-four hours he had several free and copious stools.

The phenolphthalein was continued every four to six hours. For two days he was given calomel 1/20 gr. with small doses of bicarbonate of soda and ipecac every two hours.

From the beginning he was given strychnin gr. 1/60 every four hours and it was not found necessary to change the length of time or the dose during the attack.

He was given quinin gr. 1 every four hours. He was very restless and could not sleep so w gave him gr. 5 of trional every three or four hours. This was effectual in producing sufficient and refreshing sleep. At first he was troubled with nausea and vomiting so all solid food was withdrawn. We began giving him a dessertspoonful of the liquid peptones. He had no other food till after the crisis. On the morning of July 1 his temperature was subnormal, 98 F., but on the following day it again returned to 103.5. On July 3, his temperature was normal and has remained so ever since. He has no cough or expectoration. His appetite has returned and he is now taking solid food and convalescing rapidly.

CONCLUSION

Inasmuch as croupous pneumonia is generally considered to be a self-limited disease and as we have no known specific antitoxin, we should endeavor to sustain the vital forces by proper medication and a concentrated and readily assimilated diet, so that the phagocytes, the natural defense cells of the body, may be in the best possible condition to destroy the *Pneumococcus lanceolatus* of Fraenkel or possibly the *Bacillus pneumonia* of Friedlander.

THE CONDUCT OF NORMAL LABOR*

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The conduct of normal labor should have for its goal a live, healthy and uninjured mother and babe. Whatever contributes to this end should logically come under this head. Yet the writer intends to omit all factors of general health and habits of the parents and even the care of the mother before confinement, and begin with labor itself.

Since most labors begin as normal ones, and become pathological only as they progress, or as abnormalities develop, it is necessary in the normal confinement to keep ever in mind the matter of preventing as far as possible their occurrence. We must think of these both on the part of the mother and also of the babe. On the part of the mother, prevention must be directed against sepsis, hemorrhage and laceration of the perineum; while on the part of the babe, it should be with reference to establishing respiration, proper treatment of the cord, eyes and skin.

Measures which prevent sepsis are the same or similar to those which prevent infection in any other part of the body, namely those which prevent bacteria from entering the freshly abraded surfaces of the perineum and uterus. A well-developed surgical conscience is therefore necessary to a uniformly good obstetrical technic, since obstetrics can only be considered as one phase of surgery—the most difficult one in fact, in that the conditions are usually unfavorable.

The first prerequisite is that the doctor himself shall come contagion- and infection-free to the confinement.

We wish to emphasize the following points with reference to the conduct of labor:

1. Do not depend on the home or even a nurse when in a home, for the preparation of sterile goods which are not boiled, but rather carry them to the confinement in a pack already sterilized.

We believe the sterile pack to be of vital importance to the best asepsis, and that it is available to any practitioner. This pack should contain at least one gown, one pair leggings, six hand towels, tape and dressing for cord. These articles can be wrapped in a package which measures 9x10x2 or 2½ inches. By having on hand from five to ten of these packs one can care for a practice of 30 to 75 cases a year; half of them being in preparation while the other half are ready for use.

With each sterile pack should also be a metal or glass container holding about one-third pound of cotton which has likewise been sterilized.

These insure uniform preparation which in the best homes is unlikely and in the poorer homes not to be thought of; and with uniform preparation, a uniform technic can be carried out. This leaves the home to provide nothing but fire and water and ordinary bed clothes, the vulvar pads having been previously arranged for either by buying them already sterilized or by washing, ironing and wrapping the ordinary menstrual napkins.

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

2. Depend much on the external examination for diagnosis of presentation and position so that the internal examinations can be reduced to the minimum. Before the internal examination is made, prepare the patient as thoroughly as for operation.

3. Have *good* instruments and at least enough to properly care for the cord and to do a primary perineorrhaphy.

4. Have a good arrangement of the bed, light, chairs and tables, having at least one table for sterile goods only.

5. Have the best available help on every case, and enough to give adequate assistance. If no trained help is at hand, it is a good investment to take a few minutes to teach those present what they are to do and not to do. If trained help is not at hand, the physician himself must do most of the preliminary arrangement, so that there will be little left for the unskilled assistant to do.

To review then the details of delivery in the order of their occurrence the following points would be mentioned (when the doctor is alone):

1. On entering the room get a history of the duration of labor, the severity, frequency and regularity of pains; whether or not the show or liquor amnii have been discharged. From these one can judge the amount of time he has for preparation.

2. Take the temperature, pulse and respiration. This will help to exclude existing disease which might later be taken for puerperal infection.

3. Select instruments, basins, gloves, sutures and all things to be boiled and place them over the fire. Put razor and clippers in lysol solution.

4. Arrange the furniture. The bed should be arranged so as to get light on the perineum during delivery. One chair for the physician should be placed facing the bed. One small table each for sterile and non-sterile goods, a box or chair for solution bowls and a tub under the bed for slops, should be provided.

5. Drape patient lengthwise in bed for external examination.

6. Doctor to put on rubber trousers or rubber apron, and scrub hands and arms, and make the external examination.

7. The patient is then changed to the transverse, dorsal position with hips projecting over the edge of the bed, feet resting on the physician's chair and the legs are draped with sheet, allowing a wide exposure of lower abdomen and perineum. Papers or rubber are placed under patient's hips so as to direct slops into tub beneath.

8. Bring in the pan containing the boiled things; open sterile pack and place it on the table for non-sterile goods; open the cotton can and place it on chair or box used for solution bowls.

9. Scrub again. Have water changed and with this scrub the field with soap and water and cotton or gauze, but not brushes, avoiding the vulva. Shave or clip. Use fresh water and soap after shaving, this time beginning with the vulva and using care to remove smegma from genital folds.

10. Scrub hands in lysol solution, then the vulva and later the surrounding parts. Put on gloves in lysol; separate the labia with the fingers of one hand and make the *first internal examination* with the other.

Thus far, no sterile gown or towels are used because they are unnecessary and also because when once put on they will become contaminated if removed before labor is finished. If labor is not well advanced, a sterile pad is applied to the vulva and the woman allowed such positions as may be desirable. If, however, labor is well advanced the sterile goods are arranged for the rest of the delivery as follows:

1. Two or three towels are placed as a cover for the table designated for sterile goods, and on this cover all sterile goods

and the things which have been boiled are placed. This allows immediate access to any article needed, and without fishing it out of a pan of water or solution as is often the case. This table is placed close to the doctor and close to the box holding the solution bowl.

2. The sterile gown is put on. Sterile leggings are applied to the patient. This completes a sterile field from the doctor to and including the field of operation. The physician can now touch anything in this field and also the patient can straighten out or bend her legs without contaminating any part of this field. This makes a long continuance of this position possible and comfortable for both doctor and patient. It also allows of repeated flushings of the perineum and the fecal matter is washed down into the tub beneath. With this position the initial enema lessens in importance since there is perhaps less danger in caring for formed stools in this way than there is in the intermittent expulsion of liquid stool from an enema which has not been completely expelled before the end of labor.

The head is retarded in its passage through the perineum by pressure upward and towards the pubes, placing the fingers directly against the head and not against the stretching perineal muscles. The patient is told to breathe through the mouth during pains and to bear down between pains. Ether is given during this stage if the patient wants it, but usually only to the degree of partial narcosis.

As soon as the head is born, search is made to learn if the cord is about the neck, and if it is, delivery is hastened. If the cord tightens, the two forceps are applied close together and the cord cut between. If the cord is not about the neck, the baby's eyes are washed with boric acid solution and the mouth freed from mucus. The woman is then told to bear down and expel the child.

When expelled, such aid as is needed to start respiration is given, and when the child's color is good, the cord is tied with small tape, carried in the sterile pack, about ½ inch from the skin. A clamp is then placed about an inch from this tape and the cord cut between. If after careful observation there is no bleeding from the stump, the tape is then cut and the dry sterile cord dressing from the pack is applied, after first removing all vernix from the area which is covered by the binder which holds the dressing in place, by means of albolene carried in the bag.

From fifteen to thirty minutes are then allowed to elapse for the placenta to be expelled. If there is no attempt to expel it in half an hour, early or Credé expression is employed, and if these fail, we have little reluctance in entering the uterus with two or three fingers or the whole hand and removing all that should come out. This procedure should be a safe one if our asepsis is as good as it can be, with the above plan. If hemorrhage occurs, it is the surest and quickest method to arrest it.

Examination is usually made to discover if lacerations are present, while waiting for the placenta to be expelled. This allows the waiting time to be utilized by repairing them if present, and the placenta holds back the blood which would interfere with a clear field after the placenta has been expelled.

The blood is then washed off with lysol solution, a sterile pad applied and the woman placed lengthwise in the bed. No binder is employed.

Instructions are left that the uterus shall be massaged, but gently and frequently enough to cause it to contract firmly, and to retain its contraction. This is aided by the administration of 1 to 3 drams of Fl. Ext. Ergot during the first one or two days. This is employed to prevent after pains and sepsis.

SALVARSAN—ITS USE TO THE OCULIST AND LARYNGOLOGIST*

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The purpose of this paper is to describe the clinieal phase of syphilitic eonditions affeeting the eye, nose and throat.

From reeent literature on 606 we are confronted with many points to be settled, in regard to the indieation, prognosis and method of administration. At the present time the intravenous method is the most popular, not alone in the European elinics, but also in the larger elinics in America. Personally, I believe the intravenous administration is attended by fewer disagreeable symptoms, and should be used in the majority of cases. However, the intramuscular method is indicated in some special eases. The subcutaneous method has not been popular.

Eaeh case should reeeive individual treatment according to the history and symptoms elieited from a thorough examination (whieh should include urine analysis as well as a Wassermann test).

CONTRA-INDICATIONS

Salvarsan is eontra-indicated in acute infections, sueh as aeute bronchial diseases other than those of syphilitic origin, and in eases where the residual power is greatly lowered and the body generally enfeebled.

It was formerly thought that patients suffering from optie neuritis and chronic pathologieal changes in the eye-ground should not be injeeted, on aceount of danger of immediate depreciation of vision, or arsenical blindness. We are quite familiar with optie nerve atrophy eaused from the use of arsenic, and Ehrlich persistently advises against the use of the drug when arsenical preparations have been previously given.

In all due respeet to the eontra-indieations, Steinhoff, in 700 cases, has not found one ease of blindness following the use of salvarsan. At first clinicians feared the use of 606 would cause immediate depreeiation of vision and degeneration of the optic nerve. A number of such eases were reported but later from elose observation, these structural changes were found to exist before the injection. From Steinhoff's report and other reliable statistics it has been proven that optic nerve atrophy and cerebral symptoms are no more frequent since the use of 606 than before. In most cases examined with the ophthalmoseope, before and after the injection, little or no ehange will be noted in the structure of the eye-ground.

SYMPTOMS

We are eonfronted with many symptoms whieh should suggest syphilis. Some of the most important symptoms are: atrophic rhinitis, aphasia, persistent hoarseness, atrophy of the base of the tongue (Dr. Hansemann), cicatricial tissue in the mouth, pharynx and larynx, perforated septum, ozena, persistent headaehe, inflammation of the optic nerve and adjacent portion of the retina, so-ealled persistent neuroretinitis, interstitial keratitis,

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

chronically enlarged glands and the facial expression should not be overlooked. The Argyll Robertson pupil is also valuable.

The injection of salvarsan is not without an element of danger. It should not be resorted to unless a positive diagnosis has been established. Fortunately the Wassermann test has proved of great value in the diagnosis of obscure cases, and should always be made where there is any question of doubt.

INTRAVENOUS ADMINISTRATION

Briefly, the method of intravenous injection is as follows: Strict asepsis should be observed the same as in any major operation. The place of injection is made surgically clean, a moist bichlorid dressing applied, and a constrictor is placed above the elbow. The forearm and the median basilic vein usually offer the best advantage for the injection.

After the vein is dissected a double suture is passed under the vessel. This is divided and, immediately following the injection, the sutures are tied, to insure against leakage. In cases where the vein is superficial the needle may be passed directly into the vein, but in this method there is some danger of passing the needle through the vessel and injecting the solution into the adjacent tissue.

The instruments required for the injection are: one 250 c.c. or 300 c.c. glass cylinder, with rubber tubes connected by a glass tube, so that the flow can be kept under observation at all times; stopcock, special sized needle, graduated pipette and one 50 c.c. shaker bottle. The salvarsan passes into solution much quicker with hot sterile water and constant shaking.

Immerse ampule of salvarsan in alcohol, open and dissolve the powder in 10 c.c. of hot sterile water. With graduated pipette add 3 c.c. of normal sodium hydrate solution, and enough more by the drop method to clear up the precipitate which is first formed, care being taken not to use an excess of the sodium hydrate solution. This with 200 c.c. of sterile water should be filtered to remove any foreign matter, and kept at a temperature of 99° F. during the injection. The temperature of the solution can be maintained by immersing the tube in a large cylinder fitted with a rubber valve. This is a most important part of the procedure, as it is followed by less shock to the patient, and prevents a precipitate from forming, which would retard the flow and act as a foreign body in the circulation.

CASE REPORTS

CASE 1.—Mr. L., aged 40, married, has one child 8 years old who is in good health. Ten years ago, patient had characteristic rash and mucus patches in the throat. He received the usual mercurial treatment, intermittently, for one year. His condition improved for a short time, but he always complained of a persistent headache.

On examination, I found a large perforation of the septum which was gradually breaking down, also partial loss of the soft palate.

This patient received the first injection Jan. 6, 1911. Slight reaction. Headaches persisted after first injection. Six months later second injection was given, after which time the headaches subsided. There was no noticeable change in the nasal symptoms until after the second injection, when the inflammatory condition improved. After the third injection, four months later, all active inflammation in the nose and throat disappeared, and the patient complained of no further headaches.

CASE 2.—Mrs H., aged 26, married four years, no children. On Jan. 25, 1911, patient gave following history: Four years ago had mucus patches in the throat, which resisted all treatment for over six weeks, during which time she was confined in bed and unable to eat solid food. Was under mercuric treatment for nearly a year. Past two years she has had constant frontal headaches, and for past six months has had excruciating pain in right eye. Has worn glasses for two years and been under general treatment.

Examination.—Temperature and pulse normal. Urine, specific gravity 1.020, no sugar, no albumin, slightly acid. Cicatrices on the mucous membrane of mouth and pharynx. Vision in both eyes normal, under mydriatic 20/30, corrected by OD+.37 sph=+.50 cyl axis 90 degrees; OS+.37 sph=+.50 cyl axis 75 degrees. Two and a half degrees exophoria, field of vision, pupillary reflex, tension, and color normal. Ophthalmoscopic examination of left eye: The optic disc on nasal side slightly inflamed, arteries contracted and scarcely discernible. Right eye disc normal.

This patient received first injection Feb. 4, 1912. At the end of six weeks she reported pain in left eye and over frontal region greatly improved. March 20, 1912, a second injection was given and since that time patient has complained of no further headache.

Case 3.—Mr. T., aged 40, had chancre in 1904 followed by secondary symptoms. For past two years has complained of constant hoarseness and of losing voice for weeks at a time. These attacks had grown more frequent and much more severe within the last two years.

Wassermann test, slightly positive. First injection Nov. 12, 1911, followed by slight subsidence of hoarseness. Second injection Jan. 8, 1912. This was followed, within ten days, by a complete subsidence of the hoarseness and up to date patient has had no recurrent attacks of loss of voice. The initial dosage in all these cases was six decigrams.

PROGNOSIS

There are a great many favorable results reported from the use of salvarsan. At present the German profession seem to be most enthusiastic, and with their large clinics they are giving the world a valuable chain of information. From cases reported in the German medical journals, salvarsan is especially indicated and acts favorably in iritis, optic neuritis and acute lid affections. Many report successful results in choked disc.

A case of sympathetic ophthalmia was reported cured by Dr. Jadassohn of Berne, Switzerland. It does not affect favorably congenital keratitis, retinitis pigmentosa, latent muscle paralysis and in atrophy of the optic nerve no improvement can be expected, as the nerve tissue is destroyed and cannot be replaced. Primary and tertiary affections of the nose, pharynx and larynx are promptly improved by repeated injections. Three cases of "cancer of the tongue" have been reported cured by Rouant, of France.

CONCLUSIONS

1. We should not forget the valuable use of mercury and iodids in connection with the 606 treatment and, as Ehrlich says, "It is best to combat the disease by the different kinds of treatment."

2. Every physician should inform his patient that one injection will not cure.

3. A Wassermann test should be made every six months for three years, to insure the patient's safety.

4. Salvarsan is especially indicated in cases where rapid results are necessary, and in those not responding to mercury and the iodids.

5. The technic should be thoroughly mastered by every physician before attempting its use.

Salvarsan may not be as wonderful a remedy as many believe it to be, but when it is used properly and with mercury and the iodids, it is a most valuable remedy and deserves the general recognition of the medical profession.

SPECIAL ARTICLE

HERETOFORE UNPUBLISHED RECORDS OF THE MEDICAL SOCIETY OF THE TERRITORY OF MICHIGAN

Edited by
ALPHEUS F. JENNINGS, A.B., M.D.
Detroit

INTRODUCTION

Several years ago in the old Detroit residence of Dr. L. H. Cobb, there was found the Secretary's book which contained the minutes of the Medical Society of the Territory of Michigan for the first years of its existence, together with the By-Laws of the Society and the act of the Territory creating it. The book is some eight and one-half inches wide, thirteen inches long and three-fourths of an inch thick. The covers are of heavy pasteboard with a marbled finish and the binding is covered by soft chamois-skin. The leaves are thin and firm and the surface of the paper is hard and rather rough. The writing is neatly and carefully done and is quite legible. The wording is simple. The book is well preserved—it is now about ninety-three years old—and shows that it is an excellent piece of handiwork. The care with which it was kept is obvious in that there is not a scratch or a blotch upon it; no page is torn, and the edges of the leaves are smooth and straight. The binding, held by good strong string, is broken only slightly at the cover.

Two points of interest arise above the others; first, historical data, which are mentioned briefly enough; second, the insight into the manners and customs of the physicians of the day. The latter is the more prominent one for, as we shall soon see, the purpose of the Society was to define and regulate the actions of the doctors, as well as to advance the medical sciences. The law of the Territory and the By-Laws of the Society were framed to meet the needs of the community and to correct abuses which already must have begun to show themselves. Membership in the Society was considered a proof of sound ethical standards and a superior knowledge, for the names of the members were published every little while in the Detroit Gazette and early in its existence the Society proved that it could preserve inviolate its ideals.

The first page is inscribed in large round letters, "Laws and Ordinances of the Medical Society of the Territory of Michigan." The laws follow in full.

CHAPTER I.

AN ACT TO INCORPORATE MEDICAL SOCIETIES FOR THE PURPOSE OF REGULATING THE PRACTICE OF PHYSIC AND SURGERY IN THE TERRITORY OF MICHIGAN.

WHEREAS, Well regulated Medical Societies have been found to contribute to the advancement and diffusion of true science, and particularly the healing art. Therefore,

SECTION 1.—Be it enacted by Governor and Judges of the Territory of Michigan, that it shall and may be lawful for the Physicians and Surgeons now practising within this Territory in their several professions, to meet together on the third day of July next at the city of Detroit: and the several Physicians and Surgeons so convened as aforesaid, not being less than four in number, shall proceed to the choice of a President, Vice-President, Secretary and Treasurer, who shall hold their offices for one year, and until others shall be chosen in their places; and whenever the said society shall be so organized as aforesaid, they are hereby declared to be a body corporate and politic, in fact and in name, by the name and style of the Medical Society of Michigan, and by that name and style shall be in law capable of suing and being sued, pleading and being impleaded, answering and being answered unto, defending and being defended, in all courts and places and in all matters of causes whatsoever; and shall and may have a common seal, and may alter and renew the same at pleasure: Provided always that if the said Physicians and

Surgeons shall not meet and organize themselves at such time and place as aforesaid, it shall be lawful for them to meet at such other time and place as a majority of them shall think proper; and their proceedings shall be as valid as if such meeting had been holden at the time before specified.

SEC. 2. And be it further enacted, That it shall and may be lawful for the Physicians and Surgeons in the several Counties of this Territory who are or may hereafter be authorized to practice in their several professions, to meet together on such day as they or a Majority of them shall deem proper, at the place where the last term of the County Court, next previous to such meeting shall have been held in their respective Counties; and the several Physicians and Surgeons so convened as aforesaid or any part of them being not less than four in number, shall proceed to the choice of a President, Vice President, Secretary & Treasurer, who shall hold their offices for one year, and until others shall be chosen in their places; and whenever the said Societies shall be so organized as aforesaid, they are hereby declared to be bodies corporate and politic, in fact and in name, by the names of the medical societies of the County where such societies shall respectively be formed, and by those named, shall be in law capable of suing and being sued, pleading and being impleaded, answering and being answered unto, defended and being defended in all Courts and places, and in all matters and cases whasoever; and shall have a common seal, and may alter and renew the same at pleasure; Provided always that if the said Physicians and Surgeons shall not meet and organize themselves at such time and place as aforesaid, it shall be lawful for them to meet at such other time as a majority of them shall think proper; and their proceedings shall be as valid as if such meeting had been holden at the time before specified.

SEC. 3. And be it further enacted, that every Physician and Surgeon who is or shall become a regular member of such Medical Society or Societies so organized and established, shall forever hereafter be exempted from duty in the Militia of this Territory in time of peace, and from serving as a Juror.

SEC. 4. And be it further enacted, That the Medical Society of the Territory of Michigan, and also the Medical Societies of the respective Counties, shall and may agree upon the times and places of their meetings, and the time so agreed upon shall forever thereafter be the anniversary of holding their respective meetings, and it is hereby made the duty of the Secretary of the Medical Society of the Territory of Michigan to lodge in the office of the Secretary of the Territory a copy of their proceedings at their first general meeting, and it shall also be the duty of the Secretary of each of the County Medical Societies to lodge in the office of the Clerk of their respective Counties a copy of all the proceedings had at their first meeting, and the said Secretary and Clerks are hereby required to file the same in their respective offices, for which they shall receive the sum of twelve and a half cents.

SEC. 5. And be it further enacted, That the Medical societies established as aforesaid are hereby respectively empowered to examine all Students, who shall and may present themselves for that purpose, and to give Diplomas under the hand of the President, and Seal of said Society before whom such student shall be examined, which Diploma shall be sufficient to empower the person so obtaining the same to practice Physic or Surgery, or both as shall be set forth in the said Diploma, in any part of this Territory.

SEC. 6. And be it further enacted, That if any student who shall present himself for examination before any of the Medical Societies of the several Counties which may hereafter be established in this Territory, shall think himself aggrieved by the decision of such Society, it shall be lawful for such student to present himself for examination to the Medical Society of the Territory of Michigan; and if in the opinion of such Society the student so applying is well qualified for the practice of Physic or Surgery, or both, as the case may be, the President of said Society, shall under his hand, and the seal of such Society, give to the applicant a Diploma, agreeably to such decision.

SEC. 7. And be it further enacted, That it shall and may be lawful for the several Medical Societies so established as aforesaid at their annual meetings to appoint not less than three, nor more than five censors, to continue in office for one year, and until others are chosen in their places, whose duty it shall be carefully and impartially to examine all students who shall present themselves for that purpose, and report their opinion in writing to the President of said Society.

SEC. 8. And be it further enacted, That no person after the passing of this act, shall commence the practice of Physic or Surgery within any of the Counties of this Territory, until he shall have passed an examination and received a Diploma from one of the Medical Societies to be established as aforesaid; and if any person shall practice without having obtained a Diploma for that purpose, he shall forever thereafter be disqualified from collecting any debt or debts incurred by such practice in any Court of this Territory.

SEC. 9. And be it further enacted, That any Person who shall Practice Physic or Surgery without being regularly licensed, shall forfeit and pay Twenty-five dollars for each and every offence of which he may be duly convicted, to be recovered with costs of Suit before any Justice of the Peace of the County where such penalty shall be incurred by any person who will prosecute for the same; and the Justice before whom such conviction may be had, shall pay the same to the County Treasury or such other officer or officers whose duty it is to make provision for the support of the poor of said County, for the use and benefit of such poor; and it shall be the duty of such officer or officers as aforesaid to prosecute for the same. Provided the person so practising without license who shall not receive any pay or fee for the same shall be exempt from the penalty of this act.

SEC. 10. And be it further enacted, That it shall and may be lawful for the Medical Societies of the respective Counties of this Territory, and also the Medical Society of the Territory of Michigan, to purchase and hold any estate, real or personal for the use of said Societies. Provided such estate, as well real as personal, which the County Societies are hereby respectively authorized to hold, shall not exceed the sum of one Thousand Dollars; and that the estate, as well real as personal which the Medical Society of the Territory of Michigan is hereby authorized to hold, shall not exceed the sum of five thousand Dollars.

SEC. 11. And be it further enacted, That it shall be lawful for the respective Medical Societies, to make such by-laws and regulations relative to the affairs, concerns and property of said societies, relative to the admission and expulsion of members and relative to such donations or contributions as they or a majority of the members at their annual meeting shall think fit and proper.

Provided that such by-laws, rules and regulations of said Medical Societies be not contrary to, nor inconsistent with the Constitution and laws of this Territory or of the United States.

SEC. 12. And be it further enacted, That the Treasurer of each society established as aforesaid shall receive and be accountable for all monies that shall come into the hands of the President thereof for the admission of the members or licensing students; which monies the said President is required to pay to the said Treasurer, who shall account therefor to the Society at their annual meetings; and no monies shall be drawn from the Treasury unless such sums and for such purposes as shall be agreed on by a majority of the Society at their annual meeting and by a warrant for that purpose signed by the President.

SEC. 13. And be it further enacted, That it shall be the duty of the Secretary of each of the said Medical Societies to provide a Book in which he shall make an entry of all the resolutions and proceedings which may be had from time to time; and also the name of each and every member of the Society and the time of his admission; and also the annual reports relative to the state of the Treasury, and all such other things as a majority of the Society shall think proper; to which book any member of the Society may at any time have recourse; and the same together with all Books, papers and records, the property of the society, which may be in his hands shall be delivered to his successor in office.

SEC. 14. And be it further enacted, That it shall be lawful for each of the said Medical Societies, to cause to be raised and collected from each of the members of such Society a sum not exceeding Three Dollars in any one year for the purpose of procuring a Medical Library and apparatus, and for the encouragement of useful discoveries in Chemistry, Botany, and such other improvements as a majority of the Society shall think proper.

SEC. 15. And be it further enacted, That any Student who may receive a Diploma from the Medical Society of this Territory, shall pay to the President thereof on receiving the same, Ten Dollars; and for each Diploma that a Student may receive from the Medical Society of any County, he shall pay to the President thereof on receiving the same, Five Dollars.

SEC. 16. And be it further enacted, That the Medical Society of this Territory may elect by ballot at their annual meeting, eminent and

respcetable Physicians and Surgeons residing in any part of this Territory, which persons, so elected, shall be permanent members of the Society, and entitled to all privileges of the same.

Sec. 17. And be it further enacted, That all persons who may be hereafter licensed to Practice Physic and Surgery, within this Territory shall deposite a Copy of such license with the Clerk of the County in which said practitioner may reside; and until such license shall be so deposited, those Practitioners who may neglect the same, shall be liable to the penalty of this act, in the same manner as if they had no such license; and it shall be the duty of the Clerk to file such license in his office, for each of which he shall receive the sum of twelve and an half Cents and no more, from the Practitioner who may deposite the same.

Sec. 18. And be it further enacted, That nothing in this aet eontained shall be eonstrued to prevent any person coming from any other state or Country from practising Physic or Surgery within this Territory, such person being duly authorized to practiee by the laws of such state or Country, having a Diploma from a regular Medical Society, and presenting the same to the Medical Society of this Territory at any regular meeting: Provided, however, that none of the Medical Societies so established as aforesaid, shall proceed to the examination of any student in order to license him for the Practice of Physie and Surgery until such student shall have produced satisfactory testimony that he has regularly studied Physic or Surgery or both, as the case may be, with one or more reputable practitioners for the full term of three years, and that at the time of so presenting himself he is of the age of Twenty-one Years or upwards, and of good moral character.

Sec. 19. And be it further enacted, That if there should not be a suffieient number of Physicians and Surgeons in any of the Counties of this Territory to form Themselves into a Medical Society agreeably to this aet, it shall be lawful for such persons to assoeiate with the Physicians and Surgeons of an adjoining County for the purposes hereby contemplated.

Sec. 20. And be it further enacted, That this act shall be and hereby is declared to be a public act.

Provided always, That it shall be in the power of the Legislative Authority for the time being, to alter, modify or repeal the same whenever they shall deem it necessary or expedient.

The same being adopted from the laws of one of the original States to wit the State of New York, as far as necessary and suitable to the circumstanees of the Territory of Miehigan.

Made, Adopted and published at the City of Detroit in the said Territory this fourteenth day of June in the year of our lord, One Thousand Eight hundred and nineteen.

Lewis Cass, Governor of the Territory of Michigan.

A. B. Woodward, One of the Judges of the Territory of Michigan.

John Griffin, One of the Judges of the Territory of Michigan.

CHAPTER II.

By-Laws and Ordinances of the Medical Society of the Territory of Michigan.

Abstracted

1st. The officers of this Society shall be a President, Vice-President, Secretary, Treasurer, and three Censors who are elected by Ballot and continue in office for one year and until others are ehosen in their plaees.

In 1839 the censors were made five instead of three.

2d, 3rd, 4th and 5th define the duties of President, Viee-President, Secretary, and Treasurer respectively. The President has a casting vote when the Society is equally divided. He shall deliver a dissertation on some medical subjeet or instead thereof, state some particular case at the end of eaeh year after his election.

6th. The censors shall attend all regular meetings of the society for the purpose of examining students; and hold special meetings for the same purpose, when called by the President; they shall report fully their proceedings to the Society at the next regular meeting. They shall regulate their proeedings agreeably to the Laws of this Territory, and to the Laws and Ordinances of this Society.

In 1839 the word "Territory" was struck out and "State" inserted. Later the section was repealed.

7th. At any meeting of this Society, whenever the presiding officer shall have declared a quorum present and called their attention to order,

The roll shall be called. The minutes of the last meeting read.

The Students examined,

Unfinished business of last meeting noticed,

Miscellaneous subjects considered. Society adjourned.

8th. At the anniversary meeting, immediately after the examination of students,

The election of officers shall take place,

Treasurer make his report.

Amendment to By-Laws proposed,

Other proceedings as in Article 7.

With the repeal of section 6, the examination of students was omitted from the order of business.

9th. The President, Senior Censor and Secretary shall form a board to examine students in the preparatory branches of education and give a certificate previous to their entrance upon study. This section furthermore designates the time of meeting of the board and that minutes shall be kept. A collegiate or academic education passes a student before this board; provided his moral character is accepted. The certificate given permits the applicant to study with any member of the society.

This whole section was repealed in 1839.

10th, 11th, 12th, 13th, 14th. The meetings were to be held the second Tuesday of January and of June each year at a designated place and at 10 a. m. The time of the meetings later became 3 p. m. Extra meetings could be called at the request of three members, and four members formed a quorum. At first each member not answering to his name at roll call was fined one dollar, unless he could give a satisfactory excuse. Everyone absent apparently had a satisfactory excuse so the fine became a formality and was dropped.

15th. Members were elected by a majority vote and were required upon election to sign the by-laws and pay $5.00 to the Treasurer "for the use of the society." At first the by-laws required that each name be proposed at one meeting and balloted on at the next. This part of the section proved too troublesome for the early days when the society was growing rapidly, and after one and one-half years, as it had been laid aside by motion in almost every case, it was repealed.

16th. Any member who shall be guilty of gross immorality or pretend to know and practice with any secret nostrum, may be reprimanded or expelled by two-thirds vote of this society, at any stated meeting.

This section later was changed to read: Any member of this society who shall make wilful mispresentations, with a view, or calculated to injure another's reputation or practice, shall be deemed guilty of grossly immoral conduct, and on conviction thereof, shall be reprimanded, suspended or expelled from the Society at the pleasure of two-thirds of the members present at any stated meeting.

17th. Each member will be expected to communicate annually, what have been the prevailing diseases in the circuit of his practice during the preceding year, and what mode of treatment has been most successful.

This section could not have been well carried out. Its worth and usefulness were recognized, for in one amendment it was made compulsory to so report and a fine of five dollars was to be paid by each delinquent. This method proved ineffectual and the last of it that appears in these minutes was in 1827, when the members were requested to give this information by writing and the written reports were to be filed in the archives of the society.

18th. Candidates for license to practice Physic or Surgery shall give notice thereof to the President and censors, fifteen days previous to examination, and before any one can be admitted to examination, he must produce to the censors, satisfactory proof that he is twenty-one years of age, and of good moral character: that he has studied the time required by law with one or more reputable practitioners and has appropriated that time solely to the study of Physic or Surgery. If he is a candidate for the practice of Physic, he shall be examined on Materia Medica and Pharmacy, Anatomy, Physiology, and on the Theory and Practice of Physic. Candidates for license to practice Surgery shall be examined particularly on Anatomy and Surgery.

Later the fifteen days' notice was not required.

19th. When any candidate shall obtain his certificate, signed by a majority of the censors, he shall present the same to the President, who shall direct him to deliver an inaugural dissertation on some medical or Chirurgical subject before the Society at their present or next stated meeting; after which he shall be entitled to a diploma under the seal of the Society signed by the President and countersigned by the Secretary, for which he shall pay Ten Dollars to the President for the use of the Society.

At the next revision of the by-laws this section was added to, so that any student having received his diploma could become a member of the Society by signing the by-laws, and did not have to pay the customary admission fee of five dollars unless a year had elapsed between the time of receiving his diploma and application for membership.

20th. The reasonable expense of any special meeting of the Censors for examination of candidates, to be paid by the applicants.

21st. Any member who had "conducted himself properly and settled his account with the Treasurer" could cease to be a member at his request and could obtain a certificate of dismission.

This was repealed in 1839.

22d. Questions on medical subjects may be proposed by any member, and the same being put in writing shall be discussed at the next regular meeting.

23d. The funds of the Society shall be appropriated for the ordinary and current expenses thereof; and the surplus if any, in purchasing medical publications for the use of all the members. This was soon repealed.

24th. The officers of this society shall perform their several duties free of Expense or Charge to the Society; except the Censors, called to special meetings, who shall be compensated as provided in a previous article.

25th. The Secretary shall furnish the treasurer with a list of all fines at each meeting.

Repealed later.

26th. Every member who absents himself after a quorum appears, without permission from the chair shall be fined twenty-five cents.

Repealed later.

27th. The President may examine Candidates and refuse to grant a diploma. His reasons shall be stated to the Censors.

28th. Two-thirds of the members present at a regular meeting shall have power to expell a member provided an accusation has been made and signed by three members, and the accused called on to make his defense at a regular meeting.

29th. A patient calling for counsel shall not be regarded by any member of this Society unless the attending Physician shall request his attendance. Provided the attending Physician belongs to a regular society. This was repealed in 1821 before it had a chance to be called into effect.

30th. The By-Laws of this Society may be altered, amended or repealed by a vote of two-thirds of the members present at the annual meeting only.

Besides these original By-Laws there were four added.

1. In the absence of any officer at any regular meeting of this Society, his place may be supplied *pro tempore* by the vote of a majority of the members present when no provision is made for such an emergency in any previous section.

2. It shall be deemed highly disrespectful for any member to assume or hold the knowledge of any nostrum, or palm any medicine or composition upon the public, as a secret; and any such member or members shall be deemed unworthy of belonging to this Society. And all pretenders to nostrums shall be deemed proper subjects of expulsion from this society.

3. On any complaint being entered in writing, by a member of this society to the President thereof against another member, it shall be the duty of the President to notify the accused of the complaint, at least three weeks previous to the next regular meeting, at which meeting this Society shall have power to hear, try and determine the said offense, to consider and punish by fine not exceeding five dollars; by expulsion, suspension or reprimand; as two-thirds of the members present shall think proper.

4. No person shall be admitted into this Society as an honorary member, without the vote of two-thirds of all the members present, and at a regular meeting.

(*To be continued*)

The Journal of the Michigan State Medical Society

Published under direction of the Council.

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Subscription Price $2.00 per Year, in Advance.

JANUARY

EDITORIAL

Members sued or threatened should communicate at once with the chairman of the Medico-Legal committee, SUGGESTING but not RETAINING a local attorney. Power to engage local attorneys rests entirely with our general attorneys. Complications have arisen in several cases, and considerable trouble and unnecessary expense followed, because members have not observed this rule.

PAYMENT OF DUES

We are now beginning a new year. Dues are again in order and should be paid promptly. It is not our desire to say very much about this matter at this time, but we present herewith the resolution of the House of Delegates, adopted at the meeting in Muskegon:

"We recommend that at the close of the year's work in December your society collect the annual dues for the ensuing year in advance; that the delinquents have until the first of April, or three months' grace, or be dropped from the state rolls at the expiration of that time without further notice, a list of the members in good standing being published in the May JOURNAL."

LEGISLATIVE MATTERS

The Legislature meets January 2, and we shall endeavor to keep our members informed of proposed legislation, giving numbers and titles of bills in which the medical profession is especially interested, together with an abstract of the provisions of these bills. During the last legislature we performed this service as far as we were able to obtain copies of bills.

Already a number of bills are being considered in which we, as a profession, are interested. There will probably be a chiropractic bill — to define and regulate the "science" of chiropractic. A bill for this purpose was introduced two years ago and had smooth sailing until it was amended so that its promoters were glad to let it die.

The Glasner bill, providing that a certificate of health must be presented before a marriage license can be issued, passed the House two years ago, and died in the Senate. The bill had an objectionable amendment providing a manifestly inadequate fee to physicians for the work required of them. As now proposed, the bill provides for the necessary laboratory work to be done by the State Board of Health. This will require the State Board of Health to equip for Wassermann reaction tests, which has been requested by many county societies, but could not be done on account of lack of funds. The recent eugenic investigation in and about the

Lapeer State Hospital has shown such a state of affairs that the necessity for a bill such as this is obvious.

The House of Delegates at Muskegon instructed our Legislative Committee to endeavor to secure for Michigan pure food legislation similar to that now enforced in Indiana.

Some years ago when the Optometry Bill was being considered, our Legislative Committee found much difficulty in their work, because of the fact, that many doctors were asked to sign a petition for the Optometry Bill, and either to accommodate a friend, or because they did not know the true contents of the bill, over two hundred doctors signed these petitions. We would like to call attention of all members to this matter of signing petitions for bills to be enacted by the Legislature, and urge that all decline to lend their names to such bills, until the bills have been considered by the Legislative Committee and the Council of the Michigan State Medical Society, which committee and council are, by our by-laws, designated to look into these matters.

FEE-SPLITTING

For a number of years a practice has been springing up within the medical profession tending away from the old professional spirit, and toward commercialism. We refer to the secret division of fees, which has had so much publicity of late. The Principles of Ethics of the American Medical Association condemn the practice—not the practice of dividing fees, but the secret division of the fee. Medical societies and organizations all over the country and some hospitals have passed resolutions recording themselves against the secret division of fees, or upholding the A. M. A. principles of ethics covering the subject. Medical journals and lay newspapers and magazines have commented on this practice. But it seems to spread.

We know that many physicians uphold the practice of dividing fees, but believe practically all condemn the secret practice, which, after all, is the vicious part of this whole transaction.

If patients or their friends know that the fee is to be divided among two or more physicians, and know the terms of division, everyone should be satisfied, but if the fact and terms of this division are not known, where do legitimate fees leave off and trafficking begin?

Last year the Michigan State Medical Society appointed a committee to study fee-splitting, but owing to the illness of the chairman, no report was made at the Muskegon meeting. Last spring the Wayne County Medical Society appointed a committee to report in October, and the report of this committee appeared in our December (1912) JOURNAL. An editorial comment from the Detroit Free Press also appeared in the same number.

Recently Harper Hospital passed an amendment to its by-laws excluding from its staff all those who may be found guilty of fee-splitting, and the Detroit General Hospital has announced in its declaration of principles, that it will adopt a similar policy.

Fee-splitting is largely confined to the surgeons and specialists of the cities, and if they stop it this whole system will practically end. If fee-splitting endangers the position of those men on hospital staffs, they will be very careful about doing it. The penalty of being found out will be too great. If there is no market for the sale of cases, the traffic must stop. Hospital boards are in a position to accomplish a great deal in this way, and so long as the

practice of fee-splitting is frowned on by our medical ethics, hospitals particularly should take the lead in stamping out this practice.

ANOTHER VIEW

At the annual meeting of the Michigan State Medical Society in 1907, following the report of the Committee on Contract Practice, the following resolution was introduced and adopted:

"WHEREAS, The average medical student graduates with little other than intuitive knowledge regarding the ethics of his profession, be it

"*Resolved*, That the Council endeavor to establish in each Michigan medical school a course of instruction on this vital topic, and that special attention be thereby called to the evils of contract practice and the division of fees, and to the importance of early affiliation with the county and state society."

The practice of fee-splitting has developed within the past fifteen or more years, during a period when the medical profession has been undergoing a great change in methods of instruction. Before that time practically every young man who wished to study medicine was required to spend a year or more with a practitioner —a preceptor. During this time of study with the preceptor, and accompanying him in his work, the young man received practical training in ethics — the ideals and standards of living and acting of the profession. Within the past generation medical schools have done away with the good old preceptor system, and have given us better and more systematic instruction, but have almost universally failed to supply that most valuable precept and training of the old system, a training in what is called ethics.

Some of our schools give two or three lecture hours to this subject, but is there a single medical school in the country, which gives its students practical instruction, as well as two or three didactic lectures on this subject—instruction which will discuss individual cases and problems, not alone of ethics as outlined by the "Principles of Ethics of the A. M. A.," but as applied to every-day life and practice, and also the greater application including medical economics.

We believe if such instruction could be given every undergraduate in medicine, not in two or three hours, but throughout a course, the same as chemistry, surgery, etc., are taught, that these many questions of medical ethics, medical practice, and professional understanding would solve themselves.

Legislation to correct abuses is needed, is a good thing; and is a long step in the right direction, but while taking this step let us not forget to work also on the foundation as well as attempting to correct faulty structure already reared. It will take a generation or two to correct such an abuse through educating the undergraduate, and until then as already suggested, the hospitals, especially the larger ones have a golden opportunity.

SEX HYGIENE

For several years social workers have advocated teaching sex hygiene in the schools and other places; their philosophy being, that knowledge of such things would remove the glamour and lessen the desire for personal investigation.

Book after book on the subject is being produced, paper after paper is being read before medical societies, women's clubs, etc., advocating sex education—or education in sex hygiene.

Now comes a ray of sound judgment of another sort, to which we must lend ear— Miss Maud Miner, formerly probation officer in the woman's night court of New York City, and now secretary of the New

York Probation Association, advocates for the relief for present conditions, probation, a relieving of crowded tenements, and better living conditions for the very poor. *She advises strongly against the teaching of sex hygiene in the public schools.*

CANCER OF THE UTERUS

One of the most insidious of the serious chronic diseases, one which is the cause of much unnecessary suffering and death, is cancer of the uterus. For a number of years medical societies and individual physicians have been endeavoring to educate the public to the dangers of neglecting certain symptoms, which point to cancer of the uterus. Many women have a certain hesitancy in consulting physicians about these troubles, and postpone the matter until too late for a cure.

At the recent Congress of Surgeons of North America, held in New York City, the following resolutions were adopted:

Resolved, That the time has arrived when, if the surgeons of America are to do their duty to the citizens of this country, a campaign of publicity should be at once undertaken to bring to the attention of every woman in this country the early symptoms of cancer of the womb, and to point out that if the cancer be detected in its early stages it can often be cured; be it further

Resolved, That this Society at once appoint a committee of five, to be named by the President, to disseminate this information; and be it further

Resolved, That this committee be instructed to write or have written articles to be published in the daily press, the weekly or monthly magazines, as may prove most expedient; and be it further

Resolved, That they report their progress for the year to the next annual meeting.

Dr. Edward Martin, President of the Congress, appointed this committee to act in accordance with the resolutions:

Dr. Thomas S. Cullen, Baltimore, Md., Chairman; Dr. Howard C. Taylor, New York City; Dr. C. Jeff Miller, New Orleans; Dr. F. F. Simpson, Pittsburgh, and E. C. Dudley, Chicago.

SOCIETY NEWS

CALHOUN COUNTY MEDICAL SOCIETY

Annual meeting of the Calhoun County Medical Society was held in the Chamber of Commerce Rooms in Battle Creek, and was presided over by Dr. R. D. Sleight, the president.

After the regular order of business, the scientific program was listened to, and consisted of an address by the president who chose as his subject "Refraction." This address was very well prepared, and dealt with the subject in a manner which made it of interest not only to the specialist, but to the general practitioner as well. Following this Dr. Dean Loree, Clinical Professor of Genito-Urinary Diseases in the University of Michigan read a paper, the subject of which was "Bladder Tumors." Dr. Loree's paper proved very instructive, and was highly appreciated, as the discussion which followed proved.

The business session was then resumed, and by unanimous vote of those present, it was decided to instruct the Councillor from this district to support Dr. Wilfrid Haughey for Secretary of the State Society for the coming year, since this Society wishes to go on record as endorsing his administration, and supporting him for re-election.

Election of officers was next in order, and the following were chosen by unanimous vote: President, Star K. Church, of Marshall; vice-president, E. L. Eggleston, Battle Creek; secretary-treasurer, A. F. Kingsley, Battle Creek; delegate, R. D. Sleight, Battle Creek; alternate, W. H. Haughey, Battle Creek. Member board of directors to fill vacancy, Samuel R. Eaton, Battle Creek.

A scientific meeting of the Society will be held in Battle Creek the first Tuesday in February, and the next quarterly meeting will be at Albion, in March.

The meeting then adjourned, and reassembled at the dining room of the Athelstan Club Rooms where a banquet was prepared, to which all members had been invited as guests of the Society, and where the ladies were also welcomed.

Following the banquet, Dr. Samuel Dickey gave a short address on the "Ideal Physician."

This closed the thirty-fifth year for the Calhoun County Medical Society; a year in many ways very eventful, and on the whole, one which was very profitable.

A. F. KINGSLEY, Secretary.

DETROIT OTO-LARYNGOLOGICAL SOCIETY

Meeting of Oct. 15, 1912. Dr. P. J. Livingstone in the chair.

Dr. P. M. Hickey exhibited a case, a child, of prolonged wearing of the tracheotomy tube with stenosis of larynx, cured by forcible intubation after a preliminary dilatation was effected by a urethral sound. Dilatation was effected by the use of graduated intubation tubes.

Mrs. Frank A. Reed, by invitation, read a paper on "Impediments and Defects of Speech," elucidating many points in a thorough manner, based on careful study and a rich practical experience.

Drs. E. L. Shurly, C. W. Hitchcock (by invitation), B. R. Shurly, H. H. Sanderson, L. J. Goux and E Amberg, participated in the discussion. Mrs. Reed answered numerous questions and told how readily the president of the syndicate stopped publishing the pictures and doings of "Stuttering Sammy," after being convinced through her effeorts of the evil effects of them.

Dr. Hugo A. Freund (by invitation) read a paper entitled 'Some Observations on Nasopharyngeal Operations from the Standpoint of Internal Medicine," in which the author pleaded for a more thorough and discriminating consideration of the condition of the patient in general, i. e., for a greater care in making a diagnosis, so that useless nasopharyngeal operations may be avoided. He quoted examples. The disease, and not the symptoms should be treated.

Drs. Wilson, Simpson, B. R. Shurly, Goux, Amberg. Hickey, Gleason and Freund participated in the discussion.

Dr. B. R. Shurly asked every member of the society to become an associate member of the committee on ozena.

Meeting of Nov. 19, 1912. Dr. P. J. Livingstone in the chair.

Dr. Emil Amberg exhibited two patients, each with a bilateral congenital aural fistula, and reported a case of a trauma of the drum-membrane by a wire which pierced the region of the umbo in a factory worker. The patient was cutting a No. 1 wire, as he said. Healing was prompt.

Dr. Thomas B Cooley (by invitation) read a paper: "Experiences with Bacterins in Nasopharyngeal Infections." In recurrent colds autogenous vaccines are best. In accessory sinus disease, surgery should be resorted to first. The essayist quoted experiences encountered in his practice. Discussion: Drs. Hartz, Amberg, Wilson, Mercer and Cooley.

Dr. Emil Amberg read a paper, "Some Psychological Aspects of Medical Activities."

Discussion: Drs. H. H. Sanderson, Wilson, Cooley and Amberg.

EMIL AMBERG, Secretary.

GRATIOT COUNTY MEDICAL SOCIETY

Gratiot County Medical Society met in Alma, December 5, and accepted applications for membership of Dr. C. T. Pankhurst and Dr. C. A. Crane, both of North Star.

We had two very good papers, the first by Dr. I. N. Brainerd on the "Differential Diagnosis of the Surgical Diseases of the Lower Abdomen and Pelvis," and the second by Dr. R. R. Smith of Grand Rapids on the "Differential Diagnosis of the Surgical Diseases of the Upper Abdomen." The secretary's report showed twenty-six members for the year 1912, with two new ones for 1913.

Officers were elected as follows: president, Dr. W. E. Barstow, St. Louis; vice-president, J. Graham, Sumner; secretary, E. M. Highfield, Riverdale.

E. M. HIGHFIELD, Secretary.

HILLSDALE COUNTY MEDICAL SOCIETY

The annual meeting of the Hillsdale County Medical Society occurred in Hillsdale, December 13. The program consisted of a paper on "Treatment of Sarcoma," by Dr. H. C. Miller of Hillsdale. This paper dealt especially with the newer methods of serum treatment in general, vaccines and the later work on treatment of malignant diseases. In connection with the paper Dr. Miller presented the case of a young man with chondrosarcoma of the left shoulder region, beginning from the second rib. This young man has been treated for about a month with Coley Mixed Vaccines, with some improvement.

Dr. Charles Bower of Hillsdale read a paper on hematology, in which he emphasized the desirability of careful blood-counts and differential leukocyte counts in disease and especially in the obscure conditions. He also spoke of the immense amount of work done recently on specific treatment, growing out of study of the blood.

Dr. T. H. E. Bell of Reading read a paper on "Inguinal Hernia, with Local Anesthesia." He outlined very clearly and interestingly the technique of local anesthesia, and emphasized the desirability of injecting cocain solution into the skin not under it. The discussion of all three papers was thorough and interesting.

Dr. Wilfrid Haughey, state secretary, of Battle Creek, addressed the society on matter of interest to the profession.

The following officers were elected for the ensuing year: president, Dr. T. H. E. Bell of Reading; vice-president, Dr. B. F. Green of Hillsdale; secretary-treasurer, Dr. Charles Bower of Hillsdale.

B. F. GREEN, Retiring Secretary.

HURON COUNTY MEDICAL SOCIETY

The Huron County Medical Society held its regular annual meeting and election of officers on the evening of November 5. The following officers were elected: President, D. J. Monroe; vice-president, C. B. Morden; secretary-treasurer, D. Conboy; delegate, S. B. Young; alternate, A. E. W. Yale. Dr. D. Conboy read an article on "Treatment of Arteriosclerosis and Apoplexy."

D. CONBOY, Secretary.

INGHAM COUNTY MEDICAL SOCIETY

The Ingham County Medical Society met at the Hotel Downey, Lansing, Thursday, September 14, as guests of Dr. and Mrs. Bret Nottingham for its eleventh annual meeting. The total paid up membership for the year was fifty-eight, of which forty were present, many with their wives or husbands, making a total attendance of sixty-nine.

The meeting was called to order by the president, Dr. Bret Nottingham, who presided at the business session. The following officers were elected for the ensuing year: president, Dr. L. W. Toles; vice-president, Dr. Samuel Osborn; secretary-treasurer, Dr. H. S. Bartholomew; member medicolegal committee, Dr. G. F. Bauch; delegate to state society, Dr. B. M. Davey; alternate to state society, Dr. S. H. Jones. The delegates were instructed to put forth every effort to secure the 1914 meeting of Michigan State Medical Society for Lansing, which has already been favorably considered by many of the delegates from societies in other counties. A very practical and scholarly address was delivered by the retiring president and Dr. Willard Hunter Hutchings of Detroit gave a very interesting address on "Immunization in Surgical Diseases" which was discussed by Drs. Rulison, Huntley, Davis and Holm.

Dinner was served in the grill room at 7 p. m., after which Dr. S. H. Culver of Mason acted as toastmaster. Toasts were responded to as follows: "Hopes and Aspirations of a Physician," by Dr. Samuel Osborn; "The Physician at Home; His Whims and Foibles," by Mrs. H. S. Bartholomew, and "The Doctor in Public Life," by Dr. R. L. Dixon. Musical selections were rendered by Miss Dorothy Troxel of Warren, Ohio. On motion, a rising vote of thanks was given the host and hostess for the excellent entertainment and a vote of appreciation for the justice and impartiality of the retiring president. The year of 1912 has been one of the most successful in the history of Ingham County Medical Society. Perfect harmony has prevailed and the society has worked with united effort. During the year we have conducted a victorious election campaign for an appropriation to be used in erecting a county tuberculosis sanatorium, which building will probably be completed before the end of the year. The Lansing city hospital costing about $125,000, donated by Mr. E. W. Sparrow, has been completed. The building is modern and complete in every detail. We have secured a permanent home for the medical society at the Chamber of Commerce building, where a complete library has been established containing eighteen current medical journals. In addition to this a vigorous and successful campaign has been conducted against insanitary milk supplies, which has resulted in practically eliminating milk-borne typhoid from our city and has reduced the average bacterial counts of our general market milk to below 20,000 per cubic centimeter. Much credit for the above success is due our city officials and the public press, and individually such names as Drs. L. W. Toles, Clara M. Davis, B. M. Davey, R. L. Dixon, F. M. Huntley and others hold prominent

places. But the greatest single factor which has tended to make 1912 our most successful year is the splendid manner in which the retiring president has held our organization together and the tactful methods by which he has kept the society working harmoniously.

M. L. HOLM, Retiring Secretary.

JACKSON COUNTY MEDICAL SOCIETY

Dr. Angus McLean gave a diagnostic and surgical clinic December 6 before the Jackson County Medical Society at the Jackson City Hospital. His diagnostic clinic was in differential diagnosis of ulcer of the stomach, and duodenum diseases of the biliary tract and carcinoma of the stomach.

He laid particular importance to the clinical history which is important, and should always be elicited, to the absence of laboratory findings in many cases of malignancy in their incipiency, and when they are operable. He also said that the *x*-ray is a great aid along with the clinical history in arriving at a proper diagnosis, and cited cases with charts to illustrate.

The expectant plan of treatment should not be followed on loss of weight, and even slight loss of hemoglobin and diminution of the erythrocytes. The position of an ulcer may often be determined by the history. Ulcer induration should always be removed when possible in operation on the stomach, on account of possible beginning malignancy. All such induration should be subjected to microscopical examination.

Dr. McLean also operated on a case of inguinal hernia. He said that a cure should be effected in 99 per cent. of cases. The principal things, which prevent radical cure are, improper dissection of the sac (this should always be ligated high so that it will drop into abdominal cavity), improper approximation of tissue and unsurgical technique.

Many cases of hernia in subjects not suited for general anesthesia may safely be operated on with cucain ½ of 1 per cent., or gas and oxygen anesthesia. He also operated on a case of hydrops in lesser peritoneal sac due to injury, probably causing rupture of the posterior wall of stomach.

KALAMAZOO ACADEMY OF MEDICINE

Meeting of November 12.

After a review of the current literature by Dr. A. S. Youngs, the remainder of the time was occupied by Dr. R. B. Canfield of Ann Arbor who spoke on the subject

"Pathology of Nasal Obstruction"

Dr. Canfield spoke informally throughout, using many lantern slides to illustrate the points made.

He emphasized the importance of normal nasal breathing, and illustrated the various phases resulting from obstruction, with their causes, viz.: Collapse of alae nasi, hypertrophy of turbinated bones, deflected nasal septum in all of its forms, nasal polypi, tumors, involvement of nasal accessory sinuses, affections of the post nasal space, such as adenoids, polypi and tumors.

He also pointed out and illustrated the ill effects resulting from nasal obstruction in the young, showing slides illustrating the resulting deformity in the nasal and oral cavities, and made a plea for the early correction of all conditions producing these.

A Criticism of the Theory of the Cause of Septal Deviation

"At the last meeting Dr. Canfield asserted that deviation of the septum was caused by trauma, often slight in character. A child would fall on his nose and thus cause a separation of the cartilage, which would in time amount to a deflection. These injuries might be so trivial as to carry very little weight at time of injury, and soon be forgotten. This, in effect if not the words, was the idea. An engagement prevented my reply at the time, but as interest in the pathology of this question is not merely academic but has distinct practical worth, it seems that this opinion should not go unchallenged.

"If injury of so slight a character as the above results in deflected septa and nose block, then by far the great majority of the human race would have such. As a matter of fact, while not uncommon, it is far from common—hardly 10 per cent. of nasal cases have any degree, and not more than 2 per cent., in my experience, sufficient to be called pathological.

"Furthermore, it cannot be held that the negro child has more care than the white, and in a large clinical experience among them I rarely saw any indication of deflected septum, a fact pretty generally known among rhinologists, unless the trauma was of such a crushing character that no one could ignore it any more than they could a crushed rib or pelvis. The ques-

tion resolves itself entirely into the difference between the doliocephalic and the brachiocephalic skull plus some such cause as brings about malocclusion in the mouth, such as adenoids, thumb-sucking, etc. Now the negro has adenoids, and in greater amount than the white child, but he neither has malocclusion nor deflected septum, because of the conformation of his skull.

"The septum grows with the rest of the face, and if, for any reason, such as above outlined, it can not grow in its normal direction (vertically), there remains but one thing it can do, and that is buckle. All these cases—and Dr. Canfield's showed it admirably—have more or less gothic dome-shaped arches of their hard palate, which is part of the consequence of its not spreading out as normally occurs. This does two things: It twists the premaxillary bones, which form the anterior nasal spine, and causes them to diverge, carrying with it one or both plates of the septum and twisting its axis. This is further accentuated by the maldevelopment of the palate, and the result is a deviated septum, and is one of the causes of malocclusion.

"EDWARD J. BERNSTEIN."

Dr. E. J. Bernstein made the following announcement: "For the benefit of the profession in this part of the state, I wish to announce that I am and have been for some time past, prepared to take charge of emergency cases requiring use of bronchoscopic technique. These cases demand that they be placed in the hands of competent and well equipped laryngologists at the very earliest possible moment; a few minutes, at times, determines ability to save life. It is therefore important that some one be equipped in this vicinity, to save loss of time required to send them to more distant places. Patients unable to pay a fee will be as welcome as others."

The meeting was called to order in the Academy rooms on November 26, 1912, with the president, Dr O. H. Clark, in the chair.

The minutes of the previous meeting were read and approved.

A general discussion prevailed with reference to the time of holding the annual meeting, resulting in a decision to hold it December 17, holding both afternoon and evening sessions.

The application of Dr. R. W. Dunnington of Hartford was read and placed on file until the next meeting.

The program consisted of two papers.

1. Cancer of the Rectum,
Dr. C. G. Davis, Chicago.
2. Studies on Infectious Endocarditis,
Dr. Edward C. Rosenow, Chicago.

Forty-three persons were present.

Abstract of Dr. Davis' paper on

Cancer of the Rectum

In discussing his topic, "Cancer of the Rectum," Dr. Davis first reviewed the anatomy of the rectum and its relation to the adjacent structures, with special reference to its accessibility in surgical operations on the organ. A close study on the blood-supply of the rectum then followed. This reviewed first what had formerly been worked out by others, and then gave the results of his own dissections in twenty-one cadavers, from which the following conclusions were established:

Total, twenty-one subjects; loop present in nineteen cases; superior hemorrhoidal artery bifurcated before junction with loop, seven cases; loop anastomosed with lower division, two cases.

Lowest loop was found in one subject with the critical point almost in bottom of cul-de-sac of Douglas. Vast majority of other cases were found 1.5 cm. beneath the promontory of the sacrum.

Sixteen subjects showed the loop close to the bowel.

Five subjects showed the anastomosis formed by large loops at a distance from the bowel.

1. Following high resection of the rectum, gangrene of the stump can be avoided by ligation of the superior hemorrhoidal artery proximal to the point of entrance of the anastomotic loop from the sigmoidal artery.

2. Where high resection of the rectum is to be done by the sacral route, a preliminary abdominal incision is of value to determine the presence and location of the critical point, the relations of the superior hemorrhoidal artery, and permits of a definite placing of ligatures to check hemorrhage.

3. The anastomotic loop is not present in some cases. High resection of the rectum for carcinoma in these cases should be terminated with a permanent colostomy.

The lantern slides from *x*-ray pictures showed the arterial loops, which had been filled with

mineral substance, and illustrated the importance of the operator insuring a complete blood-supply of remaining parts before resection should be done.

He gave as his opinion that the perineal, sacral and vaginal route is best for all early low-lying growths in which sphincter control can be preserved. This lessens the danger of infection if the peritoneum is not opened, and allows a more rapid completion of the operation than the combined method. However, it causes a bloody field hard to control, and which makes it difficult to know the extent of the disease; also, the bowel sometimes cannot be drawn down.

Ligation of the superior hemorrhoidal artery to free the bowel and allow the descent of the sigmoid is followed by gangrene of the stump when the ligature is not properly placed.

The doctor advised against a sacral artificial anus and in favor of the inguinal anus. He also advised, for most cases where the anus cannot be saved, that the combined route be employed, doing the abdominal first and then the sacral. In this way the earlier high mortality has been redueed by not carrying the infection from below up into the abdomen, as is the case when the sacral work is done first.

Not only was the blood-supply illustrated by lantern slides, but also the different anatomical relations of the rectum, and one slide showing patient with artifieial anus which had existed since her operation for eancer of rectum two or three years before.

Abstraet of Dr. Rosenow's paper:

Studies on Infectious Endocarditis

Dr. Rosenow, in speaking on Studies on Infectious Endocarditis, said that he was speaking of a type in which there was no known form of infection, apparently coming on without previous disease of any kind.

Its clinical manifestations were rather definite, ineluding increased temperature; daily fever for perhaps a year; may or may not have a leukocytosis; a very low grade of infection; may have bloody urine; may have infarction, either sterile or suppurating. After death, a vegetative endocarditis is observed.

The essential characteristics of the organism under consideration is non-virulent; it is the "streptococcal" of the literature; it is a chain-forming organism, but is not merely a streptococcus, since by this we mean one of high virulenee.

In the cultivation of the organism a clump formation is observed. It sticks tightly to agar. When the clump disappears the endocarditis also subsides; hence, the beginning of the endoearditis may be an embolism.

The capillaries of the heart are *endcapillaries*, especially in the mitral valve resulting in the more frequent occurrence of lesions at that point. The young are more susceptible than the adult. The cases are usually grafted on an old healed lesion, as from scarlet fever or tonsillitis. Most of the cases which I have had have died, and these showed that the disease was grafted on an older healed lesion.

The methods employed to produce endocarditis were to pass a probe down the carotid artery and mechanically injure the valves of the heart, and then inject the bacteria. In twenty-four hours a hemorrhage occurs in a valve, on account of the avascularity of the region. On account of the end arteries, the leukocytes cannot get to the point of injury and repair the process as would be the case in other places, and in forty-eight hours myriads of bacteria have accumulated. These bacteria can grow because of the absence of leukocytes.

(The doctor here showed many mounted specimens to illustrate the artificial production of endocarditis.)

He believes that this or a related organism causes a simple endocarditis, as that following tonsillitis. This gets well and forms scars in the region already poorly supplied with blood. Then when a second infection takes place, there is very little chance for repair, and septic condition results.

"We have experimental evidence that valves do heal."

Clinically we observe that, while feeling well, the patient may suddenly have a chill and periarticular pain (embolism) and then go away. This takes place when bacteria have been destroyed and their substances liberated in the blood.

This is really an "extravascular" disease as far as where the blood can attack is concerned. The foci grow up and then give off septic material. A cure is therefore very doubtful even if the blood be impregnated with an antiseptic, since this ean not reach the focus. The best treatment is to recognize the disease as early as possible and then give a polyvalent vaccine. Use it hard before sepsis begins and even before an absolute diagnosis can be made.

DISCUSSION

Dr. E. J. Bernstein: In tonsil and scarlet fever cases, where infection remains, does removal of the tonsil effect a cure?

Dr. Rosenow: The tonsil is often an antrum of infection for this form of endocarditis. I never saw but one case of this disease where the patient had had previously a complete removal of tonsils. Fighting the infection in the throat may give the infection in the heart valves a chance to develop.

Dr. A. W. Crane: What is the relation of the cause of St. Vitus' dance and chorea to the organism of to-day's subject?

Dr. Rosenow thought this may be a type of the same organism, and saw no reason why it might not be the cause.

Dr. A. W. Crane: As a general practitioner, one is often asked by a parent if tonsils should be removed, and may in advising against it, offend some throat specialist who has declared that they should be removed. This refers especially to those tonsils which give little or no external appearance of disease, such as enlargement or redness. In removing a tonsil that is not distinctly diseased I think we remove one of the important protectors of the body, and I should advise to conserve tonsils that are not distinctly diseased. I should like to hear the opinion of Dr. Rosenow on this point.

Dr. Rosenow answered that the question of the tonsil is a very difficult one, and does not believe in a promiscuous removal, yet he never saw any harm done, even if the tonsil were not distinctly diseased, if the work had been done right. The diphtheria germs he declared lodged and developed on the tonsil first, in that the tonsil affords a good culture medium in which to grow. Also, that tonsils apparently healthy may contain much infection, even abscesses, deep in the gland.

"Snipping off" tonsils is worse than doing nothing, declared Dr. Rosenow with emphasis. The tonsil should be thoroughly enucleated, otherwise the crypts containing infection are then sealed over and the disease continues. Bad tonsils, or even abscess, may exist without any appearance of disease or local symptoms. Often the organisms may get into the blood-vessels without going through the lymph vessels. Thorough enucleation is a prophylactic measure in those who have had no infectious process, especially in adults. In children it is best to have a definite pathology in the throat, but then should be removed to prevent endocarditis.

Dr. Bernstein remarked that the pathology of the tonsil is entirely unknown at the present time.

Dr. Collins asked for more details as to the treatment of this condition.

Dr. Rosenow: Small doses of vaccines are beneficial. It is difficult to get an early diagnosis, as blood-cultures only are positive, and these come too late. The treatment is very discouraging now. I have never had a patient get well—but *we must find a cure.* Stock vaccines are perhaps best. The treatment will be an immunizing process. Use five million at first and then gradually increase to but not beyond fifty million. Even simple endocarditis would do well on this treatment.

Dr. Shillito moved that a vote of thanks be extended to our guests for the excellent papers given. Seconded and carried unanimously.

C. E. Boys, Secretary.

KENT COUNTY MEDICAL SOCIETY

The tenth annual meeting of the Kent County Medical Society was held in the Board of Trade rooms on Wednesday evening, Dec. 11, 1912, with fifty-two members present and the president, Dr. Corbus, presiding.

The application for membership of J. D. Whelpley and C. H. Holt were received, read and referred to the board of directors. A communication from Dr. Harison, secretary of the State Board of Registration in Medicine, was read and referred to the councilor of the district for action.

The councilor of the district, Dr. W. J. Du Bois, in addressing the society made an announcement that a meeting of the societies composing the fifth district would be held during the latter part of January.

The delegates to the state society made a verbal report. The club house committee, through its chairman, Dr. McBride, reported that they were still devising plans and hope to present a definite plan in the very near future, whereby the society would be able to secure and occupy its own club rooms and meeting place.

The Committee on Public Education, through its chairman, made the following report:

"Accomplishment along the line of public health improvement during the past year in this vicinity, stimulated more or less by this committee and society, and plans for continued agitation and endeavor in the same field are hereby recited:

1. In January the milk ordinance was passed by the city council much furthering the health of the community. According to the ordinance, milk cannot be sold which contains more than 200,000 bacteria per c.c.

2. The Blodgett Children's Home Clinic working in connection with the Board of Health was established. Instruction to mothers was also given in these clinics by members of this society.

3. On October 14, a lecture on medical inspection of public schools was delivered before the Ladies' Literary Club by Dr. Lucy Eames, medical inspector of the Muskegon schools.

4. Dr. Frank Lydston of Chicago gave a lecture on November 17, in the Park Congregational Church, on "Eugenics."

5. Arrangements have been made with all the women's clubs in this city and with the county grange and farmer's institutes to have addresses monthly as outlined in the State Public Health program which was published in the state JOURNAL for October.

6. A stirring up of interest which has crystallized in the expressed desire of most, if not all, the women's organizations in this community to secure lecturers which afford medical instruction and in the desire of church societies to popularize scientific knowledge along public health lines.

7. Dr. Wishart of the Fountain St. Baptist Church has promised to secure some public health lecturers for presentation before the Young People's League of that church.

8. Dr. A. S. Warthin of Ann Arbor on last Sunday before the class in practical Christianity of the Park Church, discussed, and on next Sunday will continue to discuss the subject, "Prevention of Disease." Next Friday evening, Dr. C. W. Edmunds, the therapeutist at Ann Arbor, will speak in the Ryerson Library on, "Medicine."

Popular interest in such questions as the cure of tuberculosis, the eradication of typhoid, a pure milk and water supply, the lessening of contagious disease, medical inspection of schools, sanitary plumbing, ventilation, etc., is certainly growing and we take it as a factor of great importance that women's clubs, and the grange, which is largely composed of women, are concerning themselves so enthusiastically in the matter of preventive medicine, for when women take hold of a subject it is a common observation that things move.

Various members of this society have during the year, delivered lectures before various organizations and societies in this city.

The Van Bystervelt matter remains in "statu quo" at Washington and in the committee's opinion will continue to remain in "statu quo" at Washington until Van Bystervelt's great-grand children are great-grand parents themselves.

SCHUYLER C. GRAVES, Chairman,
CORA A. MOON,
FRANCES A. RUTHERFORD.

Dr. G. L. McBride, the society's legal representative, made the following report:

"During the past year one member of this society has made application to the medico-legal committee for defense in a threatened malpractice suit. This was a case of alleged improper treatment of a fractured elbow and the suit was based on the statement made by two members of the society. All the facts in the case were ascertained and submitted to the chairman of the committee, who immediately started the machinery of defense. The general attorneys for the committee, notified the attorney for the plaintiff, that they had been retained to look after the doctor's interests and that they recognized no legal claim. At the doctor's request, the committee retained Kleinhans and Knappen of this city to cooperate with the general attorneys in the defense. Suit was threatened in this case early last January, but as yet it has not come to trial.

G. L. MCBRIDE.

Dr. R. R. Smith, chairman of the library committee, reported the progress that was being made in perfecting and enlarging our medical library.

The reports of all the committees were placed on file.

The annual report of the secretary-treasurer was read as follows:

To the Kent County Medical Society:

I have the honor to herewith submit to you my report as secretary-treasurer for the year 1911-1912, which closes tonight.

FINANCES

Balance on hand, 1911	$ 134.18
Received from membership dues	697.00
Special assessment	24.00
Advertising recipts, Bulletin	232.50
Total receipts	$1,087.68

DISBURSEMENTS

Honorarium secretary, 1911	$ 50.00
Postage account	23.25
Stationery and supplies account	23.80
Invited guests' expense	25.60
Expense, smokers	83.50
Rent	50.00
Voucher book	4.82
Reflecting lantern operator	10.00
Stenographer	25.00
A. M. Directory	6.00
Flowers	7.00
Telegrams and long distance phones	5.55
Ambulance	6.00
Bulletin and printing expense	206.25
Remitted dues, state secretary	420.75
Total disbursements	$ 947.52
Balance cash on hand	140.16
	$1,087.68

All bills paid and no debts outstanding.

Dec. 10 1912.

Kent County Medical Society:

This is to certify that we have this day audited the books of the secretary-treasurer, that all receipts and disbursements were properly vouched for and found correct, and that there was a balance in the treasury of $140.16.

Signed by the auditing committee.

R. R. SMITH,
A. M. CAMPBELL,
R. T. URQUHART.

STATISTICAL REPORT

Number of members	154
Members dropped	6
Moved away	1
Deceased	1
New members elected	8
Meetings held	16
Total attendance	866
Average attendance	54
Papers read	29
Member entering into discussion	116
Invited essayists	9
Clinical cases	37
Unpaid dues	7
Smokers	3

The above conveys to you in cold figures the result of the year's work and activity. Permit me to briefly add the following explanations and recommendation.

The *Bulletin* has made for us a net profit of $41.50.

Six members were dropped from the rolls because they were more than two years in arrears for their dues.

The average attendance in figures is smaller than in the two previous years by reason of the fact that no public meetings were held. Outside people were not counted in the total attendance figures. On the other hand our meetings have been attended by a larger average of members than in any previous year in our history.

I would recommend that the necessary steps be taken towards the appointment of a banquet committee and that an annual banquet be made a society feature. It might be well if we would for an evening forget the medical side of our profession and cultivate the social side. Such a banquet with noted speakers, not necessarily medical, would soon become an event that would be eagerly looked forward to.

Further than this I have nothing to add to what has been said in the *Bulletin* during the year. I desire to thank the membership for the honor bestowed, the courtesy shown, and the assistance rendered me.

All of which is respectfully submitted,

FREDERICK C. WARNSHUIS, Sec.-Treas.

The report was adopted and placed on file.

Dr. Burton R. Corbus, the retiring president, then read his annual address:

"I desire to express my full appreciation of the honor that I have had and the pleasure I have found in presiding over you during the past year.

"Every member on whom I have had occasion to call has shown a prompt willingness to cooperate and a desire to further the interests of this society by every means in his power. I want to express to them my appreciation.

"In particular, however, I want to express my personal appreciation and gratitude, as well as to extend the thanks of this society to the retiring secretary, who indefatigable in his labor and profligate with his time has, during his five-year term of office, had more to do with the upbuilding of this society than even the society itself realizes, and to whom the credit of such success as we have had in the past years is largely due.

"If your officers have not realized all the ambitions with which they began the year, we close our term of office with the feeling that it has been a good year, a productive year, a year of which we have no need to be ashamed.

"The average attendance has not been quite as large as last year, but this is explained by the absence of open public meetings. There has been a larger number of discussions and a larger number of local papers than last year.

"At this time I want to repeat the criticism I made at the beginning of the year, that the members in general are neither writing papers nor entering into discussions.

"There is a real danger to this society and its smaller sister society, in presenting with great frequency, outside essayists.

"There is a danger to both societies in developing a tendency to rivalry in this respect. Speaking only for the Kent County Medical Society, I do not believe that we want our meetings to develop into a lecture course.

"We appreciate the courtesy of these leaders of the profession who come to us. Incidentally, with increasing calls it becomes harder to get them; we have been much benefited in listening to them and in meeting them, but this society will not and cannot develop as it should except as it develops within itself. We must, in a larger measure, write our own papers and turn out in goodly numbers to show our appreciation of such work."

(The president then continued and read a masterly address on "Social Legislation," which will be published in THE JOURNAL in the near future.)

ELECTION OF OFFICERS

Dr. J. B. Griswold nominated for the office of president, Dr. Eugene Boise. The nomination was supported by Drs. Welsh, Graves and Brook. There being no other nomination, the secretary was instructed to cast the ballot of the entire membership for Dr. Boise. The president declared Dr. Boise elected president for the coming year. The following other officers were elected: Thomas M. Koon, vice-president; Ernest W. Dales, secretary-treasurer; Henry J. Fyle, assistant secretary-treasurer; delegates to state society N. H. Kassabian, J. D. Brook, B. R. Corbus; alternates, C. H. Johnston, F. J. Lee; G. L. McBride, defense league representative.

The president-elect was then introduced and assumed the presiding officer's chair after a brief speech in which he thanked the members for the honor bestowed on him.

On motion of Dr. T. M. Koon, supported by Dr. Griswold, the society voted to instruct the secretary to notify each member of the state council that Kent County desired to recommend Dr. F. C. Warnshuis for the office of state secretary, that our councilor be instructed to convey to the council the society's endorsement and recommendation, and that he be requested to use his influence towards securing the election of Dr. Warnshuis. Carried. The meeting then adjourned.

F. C. WARNSHUIS,
Retiring Secretary-Treasurer.

OAKLAND COUNTY MEDICAL SOCIETY

On the third of October last in the Johnson & Shaw Hall at Birmingham, Mich., the Oakland County Medical Society held an unusually good meeting. E. A. Christian, our president, was unable to be present, which was the only disappointing circumstance in connection with the meeting, but the chair was ably filled by Wm. McCarroll. After the usual routine work was transacted the applications of Chas. M. Raynale and N. T. Shaw, both of Birmingham, and Wm. Donley of the Pontiac State Hospital were read. The report of the board of directors recommending them was read and all were unanimously elected to membership by the society. After a brief report by Wm. McCarroll of the medicolegal committee was listened to a discussion of same followed. Geo. Raynale presented a very interesting paper on a case of bone cyst. It was very complete as not only were there skiagraphs illustrating the condition but also the patient himself was present and examined by all present. Dr. R. E. Mercer of Detroit then gave a very practical paper and talk on blood-pressure and methods for determining same, the deductions to be drawn from the findings, and its usefulness in diagnosis and as an index to a patient's condition. The blood-pressure was taken of a number of the members present and following same a general discussion followed. Meeting adjourned. After several musical selections the members partook of a supper at one of the local hotels, and all returned feeling very much pleased with the meeting and all they had heard.

J. B. CHAPMAN, Secretary.

PRESQUE ISLE COUNTY MEDICAL SOCIETY

At a special meeting of the Presque Isle County Medical Society held Nov. 5, 1912, the following resolutions were adopted:

WHEREAS, Death has removed from our society a brother practitioner, a faithful and upright friend and colleague, Dr. John Young of Onaway; therefore be it

Resolved, That in the death of Dr. Young, our society sustains the loss of an honored and beloved member, one who always inspired us by his cheerfulness and was most helpful in his relations, not only with his fellow practitioners, but with all who had the priviledge of knowing him.

Resolved, That his pleasing disposition, his earnest and consistent friendship and his many manly virtues be held in grateful remembrance.

Resolved, That this Society, feeling its own loss, most sincerely extends its sympathy to the widow and family on the occasion of their deep sorrow.

Resolved, That a copy of these resolutions be spread on our records, a copy sent to Mrs. Young and a copy furnished to THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for publication therein.

N. C. MUNROE,
L. C. KENT,
V. W. SHIRLEY,
C. A. CARPENTER,
W. W. ARSCOTT,
Committee.

PUBLIC HEALTH EDUCATION COMMITTEE

Report of a meeting held in Ann Arbor, Dec. 6, 1912.

The meeting was called to order by Dr. Frances A. Rutherford and Dr. Clara M. Davis was appointed secretary of the committee.

There were present Dr. F. A. Rutherford of Grand Rapids, Dr. Blanche Eppler of Kalamazoo, Dr. Jeanne C. Solis of Ann Arbor, Dr. Anna Odell of Detroit, Dr. Clara M. Davis of Lansing and Dr. Grace Clark, county chairman for Wayne County.

Dr. Clark reported details of the work in Wayne County and especially the formation of a health league in Detroit under the auspices of the Federation of Women's Clubs, comprising charitable workers, physicians and laymen interested in health conditions.

The first part of the program of the health league is the formation of mothers' clubs in connection with schools and churches. Membership in these clubs costs ten cents per year and membership cards are issued in different languages with ten health commandments on back. Dr. Clark regarded the formation of this health league as a most important step in the progress of health education in Detroit and the advisability of health leagues in some of the other cities of the state was discussed.

In regard to work through the churches in Detroit, Dr. Clark reported that health lectures had been arranged for in connection with one Congregational church. The first lecture by Dr. Victor C. Vaughan of Ann Arbor was very largely attended but later lectures were not so well attended.

Dr. Blanche Eppler proposed that the education committee make a special endeavor along the line of health education through various state organizations, such as the State Federation of Women's Clubs, the State Grange, State Synod and the State Methodist Episcopal Conference.

Then followed a thorough discussion of the relation of the State and County Public Health Education Committees to the National Committee, in the four states, of which Michigan is one, that have a State Committee and it was decided that the president and secretary of this committee correspond with the national committee and respectfully request the withdrawal from the national chairman for the state the power of appointing the county chairman.

The work of county committees was gone over and it was resolved:

1. To ask these committees to get in touch with and offer their services as advisers in health matters and in securing speakers and literature on various health topics, to all organizations, classes, etc., that take any part in health education.

2. That in order that the public in general may know of the existence and availability of such a committee, the county chairman in each county write to or see personally the principal officers of all philanthropic organizations, ministers' alliances, Y. M. and Y. W. C. A., women's clubs, granges and educational institutions in their counties and explain to them the purpose of this committee and in addition have from time to time local press notices in regard to its existence, purpose and personnel.

3. That the county chairmen be urged to formulate a plan for a weekly article on health topics in the local papers within their jurisdiction.

Inasmuch as during the past three years more than 600,000 people in the United States and territories have listened to health talks

arranged under the auspices of various health educational committees; it was felt that the efficiency of the work has already been proved and each and every one engaged in it should feel the greatest encouragement in the success of educating the laity and the general raising of health standards.

County Society Secretary: Please send report of your public health work on or before May 1 to DR. CLARA M. DAVIS, Secretary,
Lansing, Mich.

WAYNE COUNTY MEDICAL SOCIETY

A meeting of the medical section of the Wayne County Medical Society was held Monday evening, November 11. In the absence of Dr. Freund, Dr. E. W. Haass occupied the chair. Dr. J. H. Dempster, secretary. About sixty-five members were present.

"Some Errors in Infant Feeding"

was the title of the paper of the evening by Dr. Arthur D. Holmes. The writer attributed the greater portion of infant mortality to improper feeding, and the most essential feature in feeding, reform, he considered the education of the physician and through him the proper training of nurses and mothers. The physician who attended the confinement should also give directions in regard to the feeding and proper care of the infant, which matter was too often neglected. Dr. Holmes emphasized strongly the advisability of breast feeding, which was too frequently relinquished for comparatively unimportant reasons. Breast feeding should be continued until the ninth month. Czerny Keller and Finklestein maintain that with rare exceptions, every mother can nurse her child if the technique is right. Night feeding should be cut down as early as possible. A common error made by physicians is to permit the use of the nursing bottle before the secretion of milk is well established. The speaker emphasized the importance of regular feeding intervals, which should not be less than three hours. Each babe should be studied and dealt with as conditions demanded and not made to conform to the so-called average baby which in the opinion of the essayist did not exist.

The paper which was somewhat lengthy does not lend itself satisfactorily to abstracting, consequently much valuable information has been omitted.

DISCUSSION

Dr. Levy: Dr. Holmes adopted a safe and sane attitude towards the subject of infant feeding. Among faulty technique emphasis was placed on improper feeding intervals. He thought the child could be safely weaned at 9 months, especially if the condition indicated. The weaning process could be undertaken gradually and completed by the end of the first year. It was a safe principle to limit child to a quart of milk mixture in the twenty-four hours, which would not overtax the capacity of the child. The important elements in digestive disturbances of infants was the fat and the carbohydrate rather than the protein. Babies, however, get along with simple milk dilutions rather than definite percentages. Dr. Levy emphasized the short starvation period as a correction of acute febrile disturbances.

Dr. T. B. Cooley spoke of the error which takes the baby from the mother's breast so long as there is milk. It could not be impressed too strongly that the baby should have the benefit of the mother's milk—barring the possible exception of tuberculosis. The consensus among pediatrists was much more strongly in favor of breast feeding during the present decade.

Dr. Charles Douglas thought the paper a very lengthy and perfect exposition of the subject of infant feeding. Dr. Douglas said he had seen a number of patients who were injured in nursing. If after persevering and patient nursing for two or three weeks you cease to get an increase in weight or proper stools, it becomes a necessity to modify the food or remove it entirely. If with your careful management of both child and mother the food is not right, it will be even injurious in small proportions. Where the mother cannot, under the best of care, produce milk beneficially to the child, it should be removed. Dr. Douglas referred to the carelessness with which mothers were fed. The sweet foods play havoc, not only in infancy, but in adult life. There were many children ruined because the mother's diet does not receive attention. She should be limited down to a reasonable amount of carbohydrate or a sugary diet.

Dr. Delos Parker thought the problems incident to feeding were very great. He thought the diet of infants should be uniform and the work of a certain member of the family.

Dr. Rowland emphasized the importance of keeping up breast feeding. The crying, fretful baby is an overfed baby. He thought the matter of examining the breast milk of little con-

sequence. It was advisable to substitute in cases in which the breast milk did not agree and return to breast milk. He preferred simpler to percentage methods.

Dr. W. D. Ford thought it due to the advances in infant feeding that there was so much unanimity in the sentiment with the author of the paper. Dr. Ford reported a case of a baby suffering from digestive disturbance which the doctor attributed to absorption of coal gas.

Dr. J. E. Davis felt he had enough evidence to convince him that there were cases in which the mother could not nurse her baby. He mentioned eclamptic cases and cases of marked albuminuria. He thought it proper to give attention to the mother whose milk supply improved in both quantity and quality by giving her rest and proper food.

Dr. Holmes in closing the discussion thought that physicians should teach mothers how to nurse and how to feed their babies. He questioned the advisability of entirely giving up percentage feeding.

The regular meeting of the Wayne County Medical Society was held Monday evening, November 18. Dr. E. W. Haass occupied the chair, Dr. R. L. Clark, secretary. The secretary read a letter from Dr. Charles E. Barnett of Fort Wayne, Ind., commending the action of the medical society in the position taken on the question of division of fees. The following were admitted to membership in the society: Bernard B. Neubauer, M.D., Henry R. Carstens and Dr. Edward G. Minor.

A symposium on the subject of constipation constituted the program of the evening.

Papers were read by Dr. J. A. McVeigh on the Mechanical Treatment of Constipation; by Dr. J. A. McMillan on the Surgical Treatment of Rectal Constipation, and by Dr. L. J. Hirschman on the Surgical Treatment of Colonic Constipation.

The surgical section held their regular meeting Monday evening, November 25, with the chairman, Dr. F. B. Walker, in the chair, Dr. Ray Andries, secretary.

Dr. J. H. Carstens read the paper of the evening on

"Nervous Conditions in Gynecology"

Some cases of headaches may be due to reflex nervous symptoms from a laceration of the cervix. These may be cured by operation. Others with headaches and laceration are not relieved by operation and are found to be due to eye-strain. Others with the same symptoms and condition of cervix, may be due to syphilis. Others may be due to auto-intoxication and cured by a regulation of diet. When two or three pathological conditions exist, it is sometimes a puzzle as to what is cause of the symptoms. One of the nervous symptoms women often complain of is backache. This is usually attributed to pelvic conditions in women, but operations for displaced uterus often fail to cure the symptom. Insane women should be relieved of any pelvic trouble when they suffer from them, but such treatments seldom have any effect on the insanity. The nervous trouble in women is not always due to pelvic trouble, which may be present. Too much should not be promised from surgical interference.

"In conclusion," said Dr. Carstens, "I would say that the various nervous symptoms found in women are not always due to pelvic trouble, but to many other conditions, mode of living, diet, occupation, due to zymotic conditions. But if pelvic trouble is found, it is sometimes very difficult to make a correct diagnosis, as the pelvic trouble may not be at the bottom of the nervous trouble. This is all the more difficult, if we find various pelvic conditions, two or three different ones, either of which might produce the symptoms, for instance, a tear in the uterus, displacement of the uterus, movable kidney, with or without general abdominal ptosis. When such complications are found, the prognosis should be very guarded, and all the conditions should be relieved. And then the patient must receive long continued after treatment. The differential diagnosis of nervous conditions in gynecology is very difficult, and the medical man very often gets himself in trouble by jumping at conclusions and promising too much, that especially is the result of surgical interference."

DISCUSSION

Dr. Hitchcock opened the discussion. Much injustice has been done to woman in thinking only of her pelvic differences from the rest of humanity. The specialist must be a broad man if he is to be a successful man. He must not read everything into his own specialty. The many sources of reflex symptoms must be considered in their entirety.

Dr. Manton held that pelvic disturbances *per se* never give rise to nervous symptoms.

Some patients carry complete laceration of the cervix for thirty years without any nervous manifestation. Some cases of insanity are cured after operation, but not cured by the operation. Other factors go largely toward the restoration of the woman. Many women in Pontiac have been sterilized but remain insane and will continue so. Epileptics are not cured by pelvic operations. Operations may remove foci of irritation and are hence justifiable if they do not cure.

Dr. J. N. Bell called attention to the difference in attitude at the present time to that of a dozen years ago. The enthusiasm of past years has yielded to the result of experience. These patients should be looked over from all angles before any operation is decided on.

Dr. David Inglis held that everybody needs a diagnostician before operation instead of afterwards. It is not wise to promise a nervous case that an operation will cure her. The patient feels that having undergone an operation, and not being cured, that all has been done and she can never be cured. She should still be left with the hope of a possibility of cure by other means.

Dr. I. L. Polotzer advocated a thorough examination regardless of the symptoms complained.

Dr. Manton has cured more diseases by one operation than any one else in the room. A patient was treated by a young physician for heart trouble for a week, then for stomach trouble, then for nervous disease, then for liver trouble, then for a rectal trouble for another week. Her family physician made the diagnosis of appendicitis and an operation on this sixth diagnosis cured the case.

Dr. H. Wellington Yates thinks the difference between the good man and the poor man is largely in the care and patience in the examination of the patient. A great many pelvic and abdominal troubles cause nervous discomfort.

Dr. Metcalf has seen cases of insanity get better after operation. No man should do gynecology who cannot do anything in abdominal cavity. Some operators do not remove enough of the scar tissue and only serve to augment the symptoms. A few cases have been cured by the removal of fibroid tumors.

Dr. Collins thinks more than four-fifths of the mistakes of the medical profession come from lack of care rather than lack of knowledge.

Dr. Haass has seen cases of Basedow's disease which have been operated for pelvic trouble. Some of the gynecological cases are suffering from disease in the brain rather than in the pelvis. There will always be a field for the gynecologist or the abdominal surgeon.

Dr. Carstens closed the discussion.

The Wayne County Medical Society held its regular meeting, Monday evening, December 2, with the chairman, Dr. E. W. Haass, in the chair; Dr. R. L. Clark, secretary.

Dr. Hugh T. Patrick of Chicago read a paper on

"Syphilis of the Nervous System"

The subject is too large to be covered in a single paper. Tabes and general paresis are not touched because they are sequlae, but not syphilitic in nature. Syphilis of the nervous system consists in the presence of the spirochetes and the reaction of this tissue to their presence. They are found with difficulty in the vascular system of the nervous system. There is no such thing as syphilis of the neurons, either cells or fibers. The nervous elements are affected in a secondary and mechanical way. A gumma is the least frequent form of syphilis of the nervous system. Syphilitic arteritis is the most frequent form, syphilitic meningitis is next most frequent and gumma is the rarest. To these must be added a syphilitic peri-arteritis. There is an infiltration of embryonic type of cell of unknown origin, a granuloma. This is the same lesion as in other organs of the body. A gumma is simply a large collection of these cells. All the symptoms of syphilis of the nervous system are due to this relatively simple form of lesion.

Lesions of syphilis are apt to be multiple. This is very important in diagnosis. They are apt to be multiform. In one place there is arteritis, in another meningitis, etc. There is no symptom which is characteristic but can be duplicated by something else. There are three diseases of the nervous system which are not amenable to any rules—hysteria, multiple sclerosis and syphilis. Most cases are cerebrospinal in their manifestations, neither limited to the brain or the cord. The transitoriness of the symptoms is a very significant feature of syphilis of the nervous system, especially early in the disease.

The lesions of syphilis of the brain are always localized at first. It usually begins at base of

brain. The patient may have trouble with his speech, which may be transient at first. This is due to the interference with the circulation of the speech centre. If the arteries to the foot centre, he may have spasms in the foot. The symptoms depend on the area of the brain involved and on the extent of the lesion. In most cases, somatic signs are combined with mental changes. The patient is a little slower in mental processes. Headache especially at night is one of the classical symptoms. A good many cases have absolutely no headache. One should not depend on this symptom. Many have the sensation of dizziness. A great many cases have insomnia. "More mistakes are made by not examining than by not knowing" is especially applicable to the diagnosis of syphilis of the nervous system. An Argyll Robertson pupil when not in tabes or paresis, means cerebrospinal syphilis.

After these transitory signs, we get a paralysis, aphasia, etc., due not to hemorrhage, but to vascular occlusions. As the cases grow worse, a pseudocoma comes on. By strong stimulation such a case can be aroused, and when awakened are often rational, but are sometimes violent, unruly and hard to manage. A really outspoken, choked disc is unusual, and must be due to a massive gumma, which is rare. Syphilis of the nervous system usually does not cause fever, but sometimes does, the text-books notwithstanding. The vast majority of bulbar palsy cases, not in old people, are due to syphilis.

There are two rather distinct classes of syphilis of the cord. The one simulates an acute myelitis. This is due to a blocking up of the arteries, most of which are end arteries. This may come in very rapidly. The other type is a chronic spastic spinal paralysis. This is a very slowly progressing form. The symptom complex depends on the extent of the lesion across the cord and the length of the cord. Pain of the posterior roots are involved with anesthesia, associated with weakness or paralysis, is to be expected in extensive lesions of the cord. The combination of cord symptoms with brain symptoms is very suggestive of syphilis.

No individual is to be assumed to be free from syphilis for any reason whatever. It is never to be assumed to be out of the question. The mere absence of a cicatrix is of absolutely no value in excluding syphilis. Lumbar puncture is not difficult to do, and is very valuable in the diagnosis. The infection of the spinal fluid is a rather difficult procedure. Because a case is syphilis, it doesn't follow that the prognosis is good. If a part of the cortex is dead from occlusion of the vessels, the case cannot be cured. The marvelous cures are not to be obtained unless the case is treated early.

In brain or cord syphilis, when there is reason to think disaster is imminent, salvarsan should be used. Otherwise mercury and potassium iodid are to be preferred. Some patients are refractory to mercury. Most adult persons can take a large amount of mercury. They can take at least two inunctions a day, provided the mouth is kept cleaned. Iodid is not curative for syphilis, but simply kills the granulomatose cells. The mercury and the salvarsan must be depended on to kill the spirochetes. If the patient has salvarsan, there must be mercury given also.

Drs. Biddle and Inglis discussed the paper.

The regular meeting of the medical section of the Wayne County Medical Society was held December 9. Dr. Freund presided. Dr. Dempster, secretary. The paper of the evening was by Dr. H. R. Varney. His subject was

Acne

Acne is the most common of all skin diseases, comprising nearly 10 per cent. of all reported cases. A large percentage of people who reach the age of 20 have acne in some form, either mild or severe. Because of the location of this common dermatosis, being almost invariably on the face, the young patient is consequently submitted to continued uncomfortable notice and embarrassing comments. Take for example the young, sensitive girl afflicted with this disease—in a short time the effect on her mental poise and disposition is manifest. She shuns society, is depressed, irritable, and at times despises her very existence. With the young man the effect is even more disastrous. He is compelled soon to feel the insinuations of an all too-ready public who whisper that the boy has "bad blood." This distrust results in an awkward, bashful, retiring manner, a dread to look others in the eye and eventually a lack of selfrespect.

Acne is a folliculitis of the sebaceous gland and is primarily a local dermatosis. The predisposing factors that are productive of this disease are first anatomical, second bacteriological, and third physiological. The bacteriological etiology of acne is now confined, primarily to two organisms—acne bacillus and a

coccus—the staphylococcus infection occurring secondarily. The indication for treatment after considering the etiological factors is now made very definite. The first is to assist Nature in emptying and ultimately contracting the dilated sebaceous duct. The older methods of mechanical removal of the comedo are fast passing from use. It is a tedious mode of treatment and cannot be employed without much traumatism to the gland and duct, especially in the sensitive, delicate, thin skin, but a duct so emptied often fills again with a comedo even larger than the original. A far more satisfactory means of removing the comedo because of the permanency obtained is that of building up the muscular structure of this flabby, oily skin, by appropriate massage which can best be carried out systematically by the patient every twenty-four hours. It was the speaker's practice to instruct the patient just the method to employ rather than suggesting massage to the patient and allowing him to go to various places where massage is given. The routine massage commonly administered is of practically no value because of the manner in which it is applied. Careful incision and evacuation of the acne pustule with an iris knife is the most satisfactory means of treating the developed lesion. Intemperance in diet, stimulants, exercise, nervous excitement, excessive fatigue, etc., all of which lower the normal resisting power, predispose to increase the extent and number of new lesions.

Artificial means of raising the patient's blood resistance against the invading microorganisms is of some value in some forms of acne. Combined suspensions or vaccines of the *Staphylococcus albus*, acne bacillus, and diplococcus are productive of distinct improvement and cure in a certain percentage of acne where the form of acne is pustular or of the acne indurata type. No form of treatment administered singly or in combination is as productive of so prompt and permanent a cure of all forms of acne as the careful administration of the Roentgen ray.

The principal action of the ray is that it first diminishes the activity of the sebaceous gland; secondly, it gradually sterilizes and inhibits the growth of the invading organisms; thirdly, it causes a slight sclerosis of the epithelial layer and ultimately contracts the sebaceous duct. Acne conditions treated by this means will have less scarring and a much finer, smoother texture and color of skin than produced by any other form of treatment.

DISCUSSION

Dr. Andrew P. Biddle: The percentage of acne cases among the diseases of the skin seen by one engaged in dermatological work is large enough that his experience is sufficient to warrant definite conclusions to be drawn. Dr. Biddle's experience was in the main that of Dr. Varney's but he believed that there was a far closer relationship between acne and the patient's general condition than Dr. Varney mentioned in his paper. The intimate relationship between digestive, ovarian, uterine disorders, impaired nutrition, etc., and acne is such that he believed that the more one paid attention to this in his patient the greater his (the physician's) success in a practice of this class. And this, in spite of the fact that at times acne in its form is seen frequently in the apparently most healthy athlete; and in spite of the fact of his belief in the probable bacterial origin of the disease. Besides this the character of the lesion is frequently apparently dependent on this relationship. The causative relationship of the *Bacillus acne* of Gilchrist, the *Staphylococcus albus*, and in certain cases of the diplococcus of Varney and Clark, Dr. Biddle recognized. With a greater emphasis on the constitutional treatment, his method accorded with Dr. Varney's; but he believed that many a case would not get well until perhaps a dyspepsia or a constipation had been corrected or a curettage performed or a uterus fixed.

He would, however, take exception to the employment of the *x*-rays in the treatment of acne except in the most obstinate cases, and only then in the hands of the expert Roentgenologist. In Dr. Varney's hands such a course would be safe; but its admission to general use must be condemned. The attending danger as to permanent disfigurement is too great.

Dr. R. Jamieson: The question of the etiology of acne is not usually taken into consideration by the general practitioner in treating acne cases, as it is only too frequently that patients are given "blood medicine," a lotion or ointment and told that they will get well in time anyway. Basing our opinion on the previous work of Unna, Gilchrist, Engman and others, we have come to the conclusion that there is a specific organism that is the cause of comedones which, under certain conditions, will be found pathogenic, and secondarily cause activity of the pus organisms. The question of

treatment is, of course, directed primarily toward the removal of the cause; that is, the comedo with the organisms in and around it. That these organisms are not always pathogenic is shown by the fact that there are cases in both young and old in which there are comedones lying harmless in the skin for long periods of time. It requires some particular stimulus as well as special culture media for the formation of the same lesion.

Dr. J. H. Carstens noticed that acne patients had a peculiar skin, which he thought was hereditary. It seemed to run in families who were in the habit of eating food that was rich in fat producing properties. His method was to regulate the food. He also gave glycerin internally and he thought, with a great deal of benefit.

Dr. Roland Stevens was surprised because nothing had been said about the work of Sabro, whom he considered did more work than Unna and Gilchrist. He showed that acne was only a later result of seborrhea. He though acne to a large extent infectious by direct contact.

Dr. T. B. Cooley reported a case of melena neonatorum which he had seen with Dr. Vaughan. The patient was three days old and the hemorrhage appeared from the whole intestinal tract. Horse serum had apparently no effect. Dr. Cooley injected by means of a glass syringe blood from his own vein into the vein of the child. Two injections of 10 c.c. each together with normal saline were sufficient to bring up the blood-pressure. Dr. Cooley called attention to the simple method of transfusion, namely, by using the glass syringe, which possessed the advantage of both suction and pressure.

IN MEMORIAM

DR. H. C. GUILLOTT, of Pontiac, a former member of the Michigan State Medical Society, died suddenly of heart disease, December 3, 1912; age 45 years.

DR. JOHN YOUNG, of Onaway, University of Michigan, 1875, a member of the Presque Isle County and Michigan State Medical societies, dropped dead in his yard on Nov. 4, 1912; age 66 years.

NEWS

Dr. G. H. Sherman of Detroit is spending a month in London.

Dr. I. Lindgren of Ishpeming, Mich., has gone to his old home in Helsingfors, Finland.

Dr. C. B. Burr of Flint is spending three months traveling and studying in Europe.

Dr. Giddings, formerly of Augusta, has finished his hospital work at Youngstown, Ohio, and taken up practice at Climax.

Dr. R. S. Stark formerly associated with Dr. A. L. Van Horn, of Otsego, has moved to Allegan, where he will engage in practice.

Dr. H. T. Setheny of Menominee was operated on in St. Joseph's Hospital, Menominee, for the removal of gall-stones, November 11.

Dr. W. H. Riley, of Battle Creek, has gone to New Mexico for a short time, after which he will tour Europe, spending considerable time in the large clinics in special study.

Dr. M. J. Rowe, Assistant Physician at the State Hospital Kalamazoo has resigned his position and taken up his residence in Monrovia, California, where he has gone to improve his health. He is accompanied by his family.

Dr. Angus McLean read a paper of "Surgical Diseases of the Upper Abdomen," before the Genesee County Medical Society, October 29, and gave a surgical clinic at Jackson on December 5, as guest of the Jackson County Medical Society.

The clinic for tuberculosis has been started in Kalamazoo. The offices are in the old Stone property on Lovell street, near Burdick. Clinics are held three times a week for the care of patients. Dr. Shepard is in charge, and may be consulted by any who may desire to have patients enter this service.

W. B. Saunders & Co., medical publishers, are now established in their new seven-story building on the west side of Washington Square, Philadelphia, the new publishing center. A cordial invitation is extended to members of the profession, visiting Philadelphia, to inspect the new plant.

The plans for the new Kalamazoo tuberculosis sanatorium and contagious disease hospitals are nearly perfected. Bids for the construction work will soon be advertised for, and the work will go forward as rapidly as possible. The site selected for this institution is on Alamo Avenue, at the top of the hill.

Dr. Charles W. Thompson has resigned from the assistant superintendency of Newberry State Hospital to accept appointment to Woodcroft Hospital for Mental and Nervous Diseases., Pueblo, Colorado. Dr. E. J. Brady of Kalamazoo State Hospital will succeed Dr. Charles W. Thompson as assistant superintendent at the Newberry State Hospital.

The Southwestern Michigan Dental Association held its annual meeting in Kalamazoo during the past week. Among the things demonstrated at this meeting, of interest to physicians, was the use of nitrous oxid-oxygen analgesia and anesthesia by Dr. Barber of Chicago. This form of anesthesia seems to have practically replaced all others for dental work. Dr. Barber handled the anesthetics in a masterly way.

The Board of Trustees of Harper Hospital unanimously passed the following resolution, Nov. 4, 1912:

"Any member of the Medical Staff convicted of the illegal division of fees shall be dismissed from the Staff. The interpretation of the phrase "illegal division of fees" shall be according to the definition and standard adopted by the American Medical Association. Charges preferred in writing to the Executive Committee of the Medical Board shall be investigated by the Committee and by a majority of vote may be dismissed or referred for trial before the Conference Committee and from there for final action to the Board of Trustees."

At a recent meeting of the State Board of Health it was decided to place venereal disease on the list of those to be reported by physicians to the local health boards and by the latter to the State Board of Health. Special regulation was made, however, that physicians need not report these cases by patients' names, but by office number or some other symbol. This is taken to be a step toward more active efforts to restrict the spread of these diseases by instituting restrictive measures for those affected.

Ophthalmia neonatorum is to be reported by name together with other data. The blank forms for reporting these cases are now being prepared and will be sent out to health officers and physicians soon.

Tulane University of New Orleans has instituted this session a series of courses in sanitary science for medical, science and engineering students specializing in sanitation. The medical graduate of this course is prepared to become health officer or serve on boards of health. The science graduate becomes an expert on sanitary biology, and the engineering graduate is prepared to design, build and care for structures for sanitary purposes.

In the senior class of the sanitary engineering course instruction will be given in water-supply, framed structures and reinforced concrete construction by Professor Donald Derickson, recently professor in postgraduate courses in reinforced concrete at Cornell University. Instruction and laboratory work in sanitary microbiology will be given by Professor Creighton Wellman and his assistants in the school of tropical medicine.

COMMUNICATIONS

THYROID SURGERY

TO THE EDITOR: In the last issue of the JOURNAL I noticed in a discussion by Dr. J. W. Vaughan (page 811) that the statement was made that Dr. Green of Ann Arbor many years ago removed the first thyroid gland. It was in the fifties that Dr. Green did his operation, I believe, and it is often spoken of as the first removal of the gland ever done.

While this fact is a matter of pride to us in Michigan inasmuch as thyroid surgery has assumed such a magnitude in recent years, it is well to find out whether it is a fact or not

lest some outsider, without our local pride, may question our pretensions and justly so.

I have but little access to old records, but in the few I have it is easy to find cases antedating Dr. Green's many years and no doubt the Peruvians who so skilfully trephined in ancient times did thyroidectomies also.

Benjamin Bell of Edinburgh, before 1802, advised the removal of certain enlarged thyroids ("goutre") although he states "it must always be hazardous, and has proved fatal." Evidently while he did not do the operation himself he knew of it being done by others.

Desault operated on one Jacqueline Hyoms in the Hotel Dieu, May, 1791, removing a thyroid tumor, and his pupil (Bichat) in reporting it gives a very clear description of the operation which could guide us well to-day. He also mentions that Gooch had done two similar operations and also that "Thedon and Vogel have obtained as fortunate and as speedy results as Desault."

There seems no doubt that an occasional thyroid tumor was attacked successfully by aggressive surgeons in those days. In this country Dr. Chas. Harris reported two such successful operations with recovery, in the "Medical Repository" of 1808, and advises its more general use. Dr. Harris's cases were cystic tumors of the thyroid apparently, although the editor in a footnote very unkindly suggests that they could not have been enlargements of the thyroid gland because such operations were "hazardous and had undoubtedly proved fatal" in several instances. This sounds as though he had quoted Bell also.

Harris's description of the tumor extending from the chin to sternum and nearly two inches under it, from ear to ear, under the muscles of the neck, adherent to the trachea, and to a fascia running up to the hyoid bone, with the pressure symptoms of such a tumor upon the trachea, would sufficiently define the nature of the growth as a thyroid one. He states little of its physical character but the other smaller one he describes as cystic and with a material in it like grapes, no doubt colloid. These had the usual history of many years duration. Notwithstanding the editor's doubts I believe we must credit Harris with doing his thyroidectomies long before Green.

Yours sincerely,

J. G. R. MANWARING.

Flint, Mich., Dec. 6, 1912.

PHYSICIANS' EUROPEAN TOUR

NEW YORK, Dec. 4, 1912.

TO THE EDITOR: The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed Travel Study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the localities visited. For those unable to speak the languages of the countries on the Continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, Aug. 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort and plans are now ready for a Physicians' Travel Study Tour, leaving New York July 3, for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad-Marienbad, Dresden, Berlin, Nauheim, Wiesbaden, Cologne, Brussels, the Hague, Amsterdam, etc., ending with the week of the Congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to

RICHARD KOVACS, M.D.
236 East 69th Street, New York City.

GAS POISONING

EDITOR THE JOURNAL:

I wish to report a rather unusual case of acute gas poisoning:

R. H., aged 66, gives the following history: Was lubricating his automobile. The machine had been running some ten or fifteen minutes in a very small garage without any ventilation, all doors and windows being closed. A considerable burned cylinder oil was also in the air. He was found unconscious by his wife

some thirty or forty minutes after she first heard the motor running. Found patient as above stated, unconscious on floor between rear wheels of the machine, a large quantity of vomitus in clothes and on the floor. After being carried into the house I was called and on examination I found the patient unconscious, pupils equal, but somewhat dilated, both reacting rather sluggishly to the light. Radial pulse 58, feeble, but perfectly regular. Cardiac action depressed, valvular sounds weak, no valvular leakage, nor was the cardiac area found to be enlarged by percussion. The skin cold and clammy, slight cyanosis of nose, lips and finger tips; no odor of alcohol.

The patient remained in this condition about three hours, when consciousness returned. Blood-pressure four hours after first seeing patient, 130 mm. Hg.

Next day after attack patient passed moderate amount of urine which contained a trace of albumin. Felt weak.

Third day the patient walked to my office, blood-pressure, 130 mm. Hg.; urine normal; reflexes normal.

Fourth day, apparently normal, the patient discharged. Unfortunately no temperature was taken the first two days.

CHARLES V. CRANE, M.D.
East Tawas, Mich.

NEW AND NONOFFICIAL REMEDIES

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

AFRIDOL, sodium hydroxymercuric toluylate, $C_6H_3(CH_3)(COONa)HgOH$, 2:3:1. It is a white powder which does not respond to ordinary reactions of mercury, the mercury being in a non-ionized form. It is supplied in the form of Afridol Soap, which contains 4 per cent. afridol. Used as a disinfectant for the hands and instruments and for the treatment of parasitic diseases. Farberfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Nov. 23, 1912, p. 1887).

NOVATOPHAN is ethyl 6-methyl-2-phenyl-quinolin-4-carboxylate, $CH_3.C_9H_4N.C_6H_5COOC_2H_5$, 6:2:4, the ethyl ester of paratophan. It is a crystalline, tasteless powder, insoluble in water. Its action is the same as that of atophan from which it differs only in being tasteless. It is also furnished in the form of Novatophan Tablets, 0.5 gm. (7½ grains), Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

HEXAL is hexamethylenamin salicylsulphonic acid, $(CH_2)_6N_4C_6H_3(OH)COOH.HSO_3$. It is a white crystalline powder, soluble in water. It is a weak combination of hexamethylenamin and salicylsulphonic acid. It is claimed to have the action of hexamethylenamin combined with an anesthetic and astringent action on the inflamed mucous membranes of the biliary passages and urinary bladder, without having a deleterious effect on the bladder walls. Claimed to be useful in chronic inflammation of the bladder, posterior urethritis, etc. It is also furnished in the form of Hexal Tablets, 0.5 gm. (7½ grains), Riedel & Co., New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

GLYCOTAURO, BILE SALTS, H. W. & Co., is concentrated ox bile, freed from bile pigments, each 1 gm. representing approximately 10 c.c. of fresh ox bile. It is a soft, semi-solid mass of bile-like odor and slightly bitter taste. Its actions and uses are those of bile salts. It is marketed in the form of Glycotauro Capsules, 5 gr. and Glycotauro Pills, 1 gr. Hynson, Westcott & Co., Baltimore, Md. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

MERCURIAL OINTMENT, IMPROVED, MULFORD, is an ointment containing 50 per cent. of metallic mercury in an ointment base consisting of anhydrous wool-fat, petrolatum and suet, aromatized. Its actions and uses are the same as mercurial ointment, U. S. P., but it is devoid of the unpleasant odor of the official preparation and is said to be more readily absorbed. It is marketed in the form of Capsules Mercurial Ointment, Improved, Mulford, 30 grains and Capsules Mercurial Ointment, Improved, Mulford, 60 grains. H. K. Mulford & Co., Philadelphia, Pa. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

THE TRUTH ABOUT MEDICINES

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

Crippling the Food and Drugs Act.—The discussion of the McCabe-Wilson-Dunlap conspiracy to oust Mr. Wiley from the Bureau of Chemistry showed that the Food and Drug Act was seriously crippled both by the inadequacy of the punishment meted out to the violators and the indeterminable delay in bringing cases to trial. Good examples of the law's delay are two recent notices of judgment. One of these was the misbranding of a "Walnut oil" by the Mayor Walnut Oil Company, Kansas City, Mo., the offense having been committed in January, 1910, the case finally came to trial in April, 1912, and the public document giving information about this case was not issued until September, 1912. The other is a case of a misbranded hair tonic, Fagret's Hair Tonic, L. Fagret Company, Baltimore, Md., committed in August, 1910, brought to trial in April, 1912, and made public in September, 1912. Both were clear cut cases of misbranding (*Jour. A. M. A.*, Nov. 16, 1912, pp. 1802 and 1811).

Suggestion and Suicides.—That the suggestive effect of reading details of suicide is a powerful factor in the causation of suicides among susceptible persons is recognized. The suggestion is more likely to have influence if in the account of the suicide some poisonous article commonly found in households such as phenol, lysol and rough on rats is named as the agent employed by the suicide. In New South Wales newspapers have asked by the pharmaceutical board not to publish the names of poisons used by suicides and in several instances they have heeded this request, particularly in connection with lysol poisoning cases which are numerous in all the states of the commonwealth (*Jour. A. M. A.*, Nov. 23, 1912, p. 1895).

Progress and Reaction.—To the disgrace of the medical profession it must be said that the publishers of lay journals have shown a greater desire to rid their advertising pages of fraudulent medical advertisements than have the publishers of most medical journals. The *Pulaski County Democrat* of Winamac, Ind., explains why it turned down an advertisement for the "consumption cure," Nature's Creation. On the other hand the *Denver Medical Times* boasts of the fact that the proprietary preparations advertised in that journal are not confined to those that have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, Nov. 23, 1912, p. 1897).

Duffy's Malt Whiskey.—During the Spanish-American War Duffy's Malt Whiskey qualified as a "patent medicine" and paid a special tax that was put on "patent medicines" as a means of raising revenue. Even while the federal government was declaring it a medicine the supreme court of the state of New York decided that Duffy's Malt Whiskey was not a medicine but a liquor and that persons selling it should be required to hold a liquor license. While chemists had testified that Duffy's Malt Whiskey was nothing but a poor grade whiskey, the Duffy Malt Whiskey Company in attempting to secure a new trial, submitted evidence that the preparation contained the following drugs: columba, hydrastic, pareira and taraxacum, though nothing was said about the amount of these drugs. The state chemist of North Dakota in 1906 declared that analysis indicated it to be nothing more than neutral spirits, colored and flavored. In 1908 the U. S. government seized a quantity of Duffy's Malt Whiskey on a charge of being adulterated and misbranded under the Food and Drugs Act, but so far the case has not been tried, apparently, because of the political influence of the Duffy Malt Whiskey Company (*Jour. A. M. A.*, Nov. 23, 1912, p. 1905).

Converse Treatment for Epilepsy.—Practically every nostrum on the market sold for the selftreatment of epilepsy contains large quantities of bromids. These are taken by the patient in utter ignorance of their danger and in quantities that no physician with any respect for the patient's safety or his own good name would dare prescribe. Such doses suppress the attacks but brutalize the patient and lead to a loss of mental and physical activities. The Converse treatment for epilepsy was analyzed by Prof. E. F. Ladd of the North

Dakota Agricultural Experiment Station, and found to be an aqueous solution of several bromids containing bromids equivalent to potassium bromid 15.486 per cent., the bromids being present as sodium bromid, potassium bromid, strontium bromid, ammonium bromid and iron bromid (*Jour. A. M. A.*, Nov. 23, 1912, p. 1911).

THE ANTISEPTIC ACTION OF HEXAMETHYLENAMIN.—The antiseptic action of hexamethylenamin seems to be due solely to the liberation of formaldehyd. This liberation is proportional to the concentration of the drug and therefore to the dose; and in the urine, at least, inversely proportional to the quantity of urine. The liberation is most active in acid urines; but it may occur to a limited extent even if the reaction is alkaline; not, however, in the presence of free ammonia. The chemical and clinical data as to the liberation or hexamethylenamin is insufficient. The bacteriological results show that the administration of hexamethylenamin prevents the putrefaction of acid urine, that it has a much smaller effect on alkaline urine and that it confers a marked bactericidal effect on bile, and a distinct, but limited antiseptic effect on cerebrospinal fluid (*Jour. A. M. A.*, Nov. 30, 1912, p. 1989).

PEEKE'S EPILEPSY CURE.—"Professor" W. H. Peeke, 4 Cedar St., New York, sells a "cure for fits." Peeke claims that his remedy is "absolutely harmless" and that "the tender babe, the delicate woman, the sturdy vigorous man can alike take it." Analysis made in the A. M. A. Chemical Laboratory indicated the presence of about 13.7 gm. of sodium bromid and about 4.1 gm. of ammonium bromid in each 100 c.c. Alcohol, alkaloids and iodids were absent. A little alkali, probably sodium carbonate and a bitter substance, probably gentian, were present. The analysis shows that this preparation like every other "cure for fits" owes its effect to bromids and thus is not a "perfectly safe remedy" as claimed (*Jour. A. M. A.*, Nov. 30, 1912, p. 1990).

IODEX AND IODIN PETROGEN.—Iodex is said to be an ointment of iodin, containing 5 per cent. of therapeutically free iodin. What the significance of this term "therapeutically free" is we cannot tell. The preparation probably contains no considerable amount of free iodin. Iodin petrogen is claimed to be a solution of iodin in petrogen—a proprietary preparation essentially equivalent to liquid petrox, N. F. From the nature of petrogen, it is probable that the greater part of the iodin is not in the free state. Neither preparation has been submitted to the Council of Pharmacy and Chemistry, which is an indication that the claims made for them would not be verified (*Jour. A. M. A.*, Nov. 30, 1912, p. 1992).

MUM.—This is a salve said to be a deodorant and found to contain: salicylic acid, zinc oxid, glycerin, water, a tallow-like fat and traces of essential oils (*Jour. A. M. A.*, Nov. 30, 1912, p. 1993).

PERUNA, ITS DYING GASP.—In an advertising campaign which promises to be its last, the Peruna Company—"Dr." Hartman—attempts to get even with the medical profession for the exposures which have come through its efforts. In this advertisement it is claimed that physicians have offered to sell their testimonials to the Peruna Company and particular mention is made of a letter said recently to have been received from a physician, who among other things claims to be medical referee for his county, a member of his state medical association and a member of the A. M. A. Investigation indicated that the writer, Dr. John L. Brown, Frenchburg, Ky., is a morphin addict and that he is neither the medical referee for his county, a member of the Kentucky Medical Association or of the American Medical Association (*Jour. A. M. A.*, Dec. 7, 1912, p. 2084).

THE NEWER DIGITALIS SUBSTITUTES.—The recommendations for the newer digitalis preparations are often ambitious and include such claims as lessened toxicity, increased rapidity of action, diminished irritant effects permitting intramuscular or subcutaneous administration and absence of disagreeable manifestations on the alimentary tract in comparison with the older galenical preparations. The hitherto published reports on the clinical value of the newer substitutes are variable and conflicting; hence the need of unbiased and carefully controlled trials by methods which permit of some accuracy of judgment instead of the vague conjecture which attends so many of the bedside observations and conclusions. Lately three of the more recent substitutes for digitalis preparations—digalen, digitalone and digipuratum—have been investigated at the University of Cambridge by biologic methods in respect to their relative stimulating powers and toxicities as well as their irritant properties and their relative rates of absorption from the gastro-

intestinal canal as compared with a physiologically standardized tincture of digitalis. The results of the investigation are summed up in the general statement that, all things considered it appears that not one of the new preparations is able to make a successful bid for superiority over an active tincture of digitalis, though it must be admitted that one of these, digipuratum, has repeatedly been found to be a uniformly potent digitalis extract (*Jour. A. M. A.*, Dec. 7, 1912, p. 2074).

BOOK NOTICES

THE WASSERMANN REACTION; ITS TECHNIC AND PRACTICAL APPLICATION IN THE DIAGNOSIS OF SYPHILIS. By J. W. Marchildon, B.S., M.D., St. Louis: C. V. Mosby Company, 1912. Price, $1.50.

The value and technic of the Wassermann reaction are clearly set forth in this 98-page book, together with numerous illustrations, and two colored plates showing a negative and positive reaction. This book should make a handy laboratory guide and should also be valuable in interpreting and understanding Wassermann reports.

A TREATISE ON DISEASES OF THE HAIR. By George Thomas Jackson, M.D., Professor of Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, and Charles Wood McMurtry, M.D., Instructor in Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, New York. Octavo, 366 pages, with 109 engravings and 10 colored plates. Cloth, $3.75 net. Lea & Febiger, Philadelphia and New York, 1912.

The diagnosis and treatment of diseases of the hair and scalp offer no little annoyance and difficulty to the busy practitioner. So much of doubtful value has been ingrained into us by barber, hairdresser, fashion, etc., that a reliable treatise on this subject is more than welcome.

This book is well illustrated, and is a valuable presentation of the subject, one that should be in every doctor's library.

THE PRACTICAL MEDICINE SERIES, Comprising Ten Volumes of the Year's Progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D. Volume VIII. Series 1912. Chicago: The Year-Book Publishers. Set, $10; Vol., $1.25.

This volume is of special interest in that it contains the review of the year on most of the infectious and contagious diseases. The section on the treatment of diphtheria, antitoxin and anaphylaxis, gives the whole theory in condensed form so clearly and plainly as to make it very valuable. Also the active immunization of children against diphtheria is summarized. Scarlet fever, whooping-cough and other infectious diseases as tuberculosis, tetanus and rheumatism, are part of the list.

Several devices useful in orthopedic surgery are illustrated. The entire work of the year in that line is reviewed, and the more important advances noted.

ELEMENTARY BACTERIOLOGY AND PROTOZOOLOGY: the Microbiological Causes of the Infectious Diseases. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Cloth, $1.75 net. Lea & Febiger, Philadelphia and New York, 1912.

While this is an elementary treatise on bacteriology and protozoology for nurses and beginners, it has a wealth of information and material, with many illustrations and some especially valuable colored plates.

The text while general conveys a very good understanding of bacteriology and should make a useful ready reference.

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-Book Specially Adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy; and Daniel Base, Ph.D., Professor of Chemistry in the University of Maryland. New (10th) edition, enlarged and thoroughly revised. Octavo, 774 pages, with 82 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, $3 net. Lea & Febiger, Philadelphia and New York, 1912.

This manual of chemistry covers the whole field of chemistry in so far as it is useful in the medical sciences. Beginning with chemical physics, the beginner is conducted through the principles of chemistry, the non-metals and their combinations, metals and their combinations, analytical chemistry, organic chemistry and physiological chemistry. Under this latter head especial attention is devoted to the proteins, chemical changes in plants and animals, digestion, milk and the urine. This tenth edition should enjoy the same favor as its predecessors.

MATERIA MEDICA AND THERAPEUTICS, including Pharmacy and Pharmacology. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine (retired) at the New York Post-Graduate Medical School. Eighth edition, revised. Philadelphia: P. Blakiston's Son & Co., 1912. Price, $3 net.

The usual pharmacopeial definitions, processes, weights and measures is followed by pharmacopeial preparations, and prescription writing. Then follows: inorganic materia medica, organic materia medica. Part II treats of pharmacology and therapeutics dividing the drugs according to their action.

The consideration accorded each drug is carefully and systematically presented. For instance, under "Ammonium," the preparations are given on p. 70. The argument is divided—"action:" external, internal. Under internal—eyes, nose and air passages; stomach, skin, mucous membrane and salivary glands; blood; heart and circulation; respiration; nervous system and muscles, and kidneys, each division receiving a paragraph.

This work is complete as a reference handbook and well arranged.

THE PRACTITIONER'S VISITING LIST FOR 1913. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, $1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

The text portion of The Practitioners' Visiting List for 1913 has been thoroughly revised and brought up to date. It contains, among other valuable information, a scheme of dentition; tables of weights and measure and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., with a corps of assistants. Volume III, 22d Series, 1912. Philadelphia and London: J. B. Lippincott & Co. Price, $2.

This volume maintains the high standard so long ago established by this series of reviews. Some of the contributors are Albert Abrams, San Francisco; A. D. Bevan, Chicago; Leslie Buchanan, Scotland; E. S. Carmichael, Edinburgh; S. W. Carruthers, Norwood, England; Professor Ciesielski, Poland; W. T. Dannreuther, New York; John B. Deaver, Philadelphia; George S. Foster, Manchester, N. H.; Marcel Labbá, Paris; Jerome M. Lynch, New York; William J. Maloney, New York; R. T. McKenzie, Philadelphia; P. S. O'Donnell, Chicago; M. F. Porter, Fort Wayne; T. F. Reilly, New York; John B. Roberts, Philadelphia; A. E. Roussel, Philadelphia; Wm. T. Shanahan, New York; Solomon Solis-Cohen, Philadelphia; W. G. Stern, Cleveland; Charles F. Stokes, U. S. Navy; Albert Van der Veer, New York; Maria M. Vinton, Orange, N. J.; L. R. Williams, New York; James K. Young, Philadelphia. The colored illustration of a hand affected by dry gangrene is especially valuable as is the article on "Flat-Foot."

NEW ASPECTS OF DIABETES; Pathology and Treatment. By Prof. Dr. Carl von Noorden, Professor of the First Medical Clinic, Vienna. Lectures delivered at the New York Post-Graduate Medical School. New York: E. B. Treat & Co., 1912. Price, $1.50.

Von Noorden has certainly given us something to think about in this discussion of the Pathology and Treatment of Diabetes. Throughout his talk there is no hesitancy, he speaks the certain conviction of absolute knowledge gained by countless laboratory experiments, reinforced by empiric confirmation on thousands of patients treated in his immense Vienna clinic.

The part performed in this disease by the tissues, intestines, liver, pancreas, suprarenals, thyroids and nerve centers, is so clearly defined, their separate and combined actions, effects and counter effects on the sugar forming function is so distinctly set forth, so plainly stated, as to leave a picture indelibly stamped on the tablets of the hearer's or reader's memory, which will enable him to, in imagination, see this process as it goes on within the system.

No anatomical dissection could make a more vivid impression. Here is the sugar mill with the suprarenals exciting it to activity, and the pancreas like the governor balls of an engine exerting a quieting and regulating effect, other organs and functions aiding the suprarenals, and still others the pancreas, all plainly set in motion before the eyes of the learner. Thus is the genius of Von Noorden shown as an instructor to be equally great as in the field of research, where he is admittedly unsurpassed.

American physicians are to be congratulated on having this latest word on diabetes spoken on our shores so recently (October, 1912). The process of the disease as it goes on within the body, is taken from the field of individual speculative curiosity and placed largely within that of definite scientific knowledge.

A Treatise on Pellagra. For the General Practitioner. By Edward Jenner Wood, A.B., M.D., Chairman of the Pellagra Commission, North Carolina Board of Health; Member of the American Society of Tropical Medicine, Fellow of the London Society of Tropical Medicine and Hygiene, Formerly President of the Medical Society of North Carolina, etc. With 38 illustrations in text. New York and London: D. Appleton & Co., 1912. Price, $4.

Not the least interesting chapter of this book is that on history and geographical distribution. One is struck with the clearness of the evidence showing the length of time this disease has been known under various names, the wide geographical distribution and the number of observers that have written and spoken on it from Casal in 1735 to the present day authors.

The student wishing to delve into the theory of etiology will find the subject exhaustively treated, every known theory, with its advocates and opponents, is given together with many experiments and counter theories to prove and disprove. Wood freely states the "Cause of Pellagra is Unknown."

So much of the work is devoted to description of the disease and its manifestations on the various systems as to render the picture so clear that one perusing the book is struck with the distinctness and positiveness of the symptoms that are of diagnostic importance. The atypical localization of the skin lesion, its characteristics, form, shapes and degrees of severity throughout its process, together with the modest comparison with other skin affections to which it bears any resemblance, makes the chapters on skin manifestations of particular importance.

The picture in digestive disturbances and nervous and mental changes, is made so clear as to be unmistakable.

Diagnosis, prophylaxis and treatment are placed on as near a scientific basis as is possible, with a disease of unknown causus morbus. So interestingly is the book written, so instructive and illuminating, are the case histories and citations given, that far greater pleasure and profit than usual have been afforded the reviewer in his work on this book.

Diseases of the Stomach, Intestines and Pancreas. By Robert Coleman Kemp, M.D., Profesor of Gastro-Intestinal Diseases, New York School of Clinical Medicine. Second edition, revised and enlarged. Octavo of 1,021 pages, with 388 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $6.50 net; Half Morocco, $8 net.

This second edition of Stomach, Intestinal and Pancreatic Diseases in a period of two years, shows a wonderful advance in this field, which has compelled Kemp to put out this new volume.

A comparison of the first and second editions shows an astonishing number of new and elaborated things of which in the second, we note the following few. Methods of esophageal and stomach explorations with illustrations. Six pages of text and many illustrations have been added to Ulcer of the Stomach. The subjects of Gastroptosis and Enteroptosis, have each received large additions. A complete new chapter has been given to the important subject of Infection by the *Bacillus coli*, interestingly showing the many hitherto unexplained pathologic conditions set up by these germs, their mode of entrance to organs and manner of action.

To the chapter on Typhoid Fever has been added a discussion of parathyphoid and Brill's Disease. The section on Duodenal Ulcer has been greatly extended and better illustrated. Neoplasms of the Intestine also Diverticulitis and Paradiverticulitis, and Intestinal Obstructions have each received the requisite attention to bring them up to date.

An entire new section, Part IV. of the book has been added and devoted wholly to the Pancreas and Pancreatic Diseases.

Those familiar with Volume I will be pleased with Volume II. The same high standard of excellence is maintained throughout, and the style of binding paper and print correspond.

A most useful book.

The Journal of the Michigan State Medical Society

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL

Vol. XII BATTLE CREEK, MICHIGAN, FEBRUARY, 1913 No. 2

ORIGINAL ARTICLES

ALTRUISM IN MEDICINE*

WALTER HULME SAWYER, M.D.
Hillsdale, Mich.

More men and women are giving their lives to the solving of social problems than ever before. More and more there is evident a devotion to the common weal. With an increasing population the strife for existence is keener and every harmful agency or factor is emphasized. The effort to maintain the average standard of living is continually more difficult and is calling for the energy and best thought of the present day to lay a foundation for the coming days. There is no cause for pessimism. The serious workers are looking into the future. They are delving to-day that those who come after may be profited —that the race may be preserved and perpetuated with refined and progressive attributes. Whether the ideal of progress can be realized depends on the ability of the race to retain and increase its physical well being—to foresee its dangers and destroy them.

Tremendous strides have been made in recent years in determining the causes of disease and, knowing the causes, in correcting them. Provision is made through state aid and private endowment for research work along many lines and the sum of the fixed and known is being added to with surprising rapidity. The query, "Is society breeding its own destroyer?" is being foretold in the negative. More important than all laws of property and international relationship are the laws controlling disease and sanitation.

Unselfish, so far as any purpose is unselfish, the physician has persistently led the forces of reform and progress and has been first to see and combat insidious enemies. By his alertness of observation and resource he has arrested the onslaught and turned defeat and destruction into victory. On him largely rests the hope of the future. He has many times striven unfalteringly against an overwhelming popular sentiment until he has made so plain his theorem that he who runs may read. This is his place and function to-day and always will be. His whole life is a sacrifice to the social welfare. First, to recognize his own deficiencies, he battled for higher standards of professional qualification and set the burden on his own shoulders. Regardless of consequences to himself he has espoused any cause which made for the ultimate good of all.

This attitude of subordination of self has marked the conduct of the medical profession through all ages. A lack of

* Read at the Meeting of the Detroit Academy of Medicine, Jan. 14, 1913, as the address of the guest of honor, the President of the Michigan State Medical Society.

appreciation by the public of an unselfish purpose has many times been most disheartening. The charlatan and quack have prospered while the well-equipped and conscientious practitioner has in large part been barely able to exist. This state of things was a natural result of the period of uncertainty through which medicine was passing. There were so few points on which the finger could be placed as determined beyond doubt that the laity lost faith and became fellow gropers in the dark. With medicine on a scientific basis it is coming into the light and winning the confidence of the essential agent of progress.

The field is broadening and the relief of suffering is only incident to the life of the physician. There is an increasing recognition of his responsibility to society. But what is society to do for him? How is he to exist and retain the dignity of his position? There is yet no earnest effort to solve this problem and there seems to be no disposition to undertake it until dire necessity forces it. We trust in the rapid evolvement there will be a worthy place for him. He casts his bread on the waters, hoping it will return.

The growth of medicine and the demand for a refined technic and intimate knowledge of a single subject have developed specialism to a high degree. While a natural result of progress, it has its dangers. The change has come so fast that the profession or public has not yet adapted itself to the new circumstance. There is a positive need of the man of broad information and varied experience. His proper relationship to the specialist is still undefined. His territory is constantly being encroached on and his very existence threatened. His passing would be a deplorable mistake. The determination of his status is imminent. The dishonest and unfair expedient of fee splitting has been many times resorted to. This is a disgrace to the profession of which it must purge itself. Though an answer to this question has not yet been offered, it must be found. While the large annual addition to the ranks of medicine is being reduced by higher standards, it still far more than meets the needs.

A favorable, sympathetic public sentiment is prerequisite to any reform. The well-equipped practitioner who is an influential part of every community has been in the past and must be in the future the creator and pioneer. While material reward has always been an afterthought and repugnant to him, yet he must be properly compensated and protected. He is in a high degree a public servant and the time will come when he will be a part of an organized service, and a definite tax on his community.

If the profession has lacked in any particular thing it is in failing to use the agencies of society in the work of reformation. There is an awakening to this need and medicine is beginning to assert itself in matters of organization and legislation. Its united influence is being exerted and felt in all the ruling bodies. There is an inspiring prospect. The possibilities of accomplishment must enthuse the most phlegmatic.

Realizing that in union there is strength, the profession of medicine has built up an organization which is constituted to effectively impress its purpose on the public and aid any cause within its range of interest. This is an irresistible force if brought into action and well directed. The feeling of individual responsibility in the unit for accomplishment should be maintained and a healthy condition of the prime division of the organization is so important as to merit thoughtful, earnest care. The whole structure rests on this basis and it must not be permitted to disintegrate or weaken.

It is probable the state will soon take over through governmental machinery a part of the function which has been assumed by the American Medical Association, The American Health Association and like bodies. A national health and sanitation bureau will be established with cabinet representation. This is a safe prediction. The crying necessity for such a service from a social, humanitarian, and economic standpoint is clearly stated in a recent number of the *Outlook* by Earl Mayo. To the medical man many of these statements are platitudes but the fact that the public is aroused to a full sense of the situation and a determination to solve the problem is portentious and encouraging and the fruition of devotion to a great cause.

Modern medicine is indifferent to pathies or cults. They are no longer a reality. They are only arbitrary and artificial, and as such of course have no permanence. These divisions or sects which have always been an obstruction no longer clip the wings of progress. No longer is there a strife for governmental recognition by any school, or fear of governmental bias. Opposition never contributed an iota to this result but to scientific medicine it must be credited. That, and that alone, has undermined and tumbled down false hypotheses and burst bubbles. The day of bitterness has passed, an age of reason and tolerance has taken its place and the time is at hand when we march as one body against the foes of health.

For a demonstration of the effective instrumentality of the government in initiation and achievement, look to the Department of Agriculture. Its research, determinations and campaign of education have marvelously changed rural conditions.

There is still a greater opportunity for a Federal Department of Health. Its power to collect data and coordinate all of the agencies for combating disease gives it a position of vantage far beyond the divided and largely voluntary service of the past. It is a matter of wonderment that we have so long waited on this event —that the people were so slow to awaken to its beneficence and necessity—that politics and finance and commerce have engrossed the attention of the republic and obscured affairs of graver import.

In the paper previously referred to Mr. Mayo capitalizes human life and demonstrates the enormous economic loss which can and should be prevented. While the U. S. Public Health Service is doing an admirable work, it fails in being unable to impress its conclusions. A consolidation of the various bureaus scattered through the different departments of state under an administrative head, properly supported, would make astonishing advancement in health matters possible. Is not the health of the people entitled to more consideration than that of animals? And yet, up to the present time, the federal government has given serious attention to the one and very little to the other.

The function of such a department would be to gather data, disseminate information, within its range of authority makes rules, encourage uniform health laws in the states and by its interest in eugenics increase the aggregate resistance and grow a stronger, more productive race. Its possibilities are not utopian but very real and practicable. The conception of a great establishment for the conservation of health and the relief of suffering may appear too idealistic and socialistic, yet this is the tendency and we would be powerless to stem the tide if we would. We have sown the seed—we have contributed to the end, and we must take the consequences, satisfied that we have played a good part.

Such a consummation would place the physician in his true relation to the community as a conservator of health. Adaptability, efficiency and devotion to duty would then bring its just reward. No longer would the family adviser be put in the unfortunate position of profiting by the ills which he alleviates. While the profession has been peculiarly free from the taint of commercialism, the incentive to it is increasingly insistent and should be removed. There are numerous examples of the feasibility of such a plan. For instance, the University of Michigan, in common with many like institutions, is inaugurating an infirmary system whereby an annual charge is made for the medical care of the student body, for instruction in sanitation and hygiene, to correct as far as possible all causes of disease, to build a strong physique and keep it so, and to inculcate the laws of good breeding. Under this scheme students requiring special care are referred to specialists. If applicable to a group of this character, why not to a civic unit?

The general practitioner is a volunteer guardian of the health of his community. Why should he not be enlisted in the regular service? Why should he not become a part of a great cooperating body? This is not inconsistent with the traditions of his calling or the consecration of his life to an ideal. The objection that he would be an integral part of a political body and no longer independent of its whims and caprices may be a valid one unless he can be divorced from this influence and the tendency is to do this except when some governmental policy or principle is involved. The general practitioner would then become a public health officer who, for a stated and adequate reward, would minister to the ills of his clientele, enfore health regulations, advise special treatment, and have a military relationship to higher authority. The success of such a plan on the Canal Zone would seem to establish its practicability. The qualifications of the physician would then be determined by a competent jury. He would no longer be subject to the often erring judgment of the laymen but would stand or fall on his merits.

Specialism would retain its position undisturbed and lose none of its attractiveness or opportunities. Public hospitals and public laboratories would be increased and afford facilities for more thorough and painstaking investigation and treatment. Better records would be kept and more exact data would be available. Complicated and expensive apparatus for diagnosis and treatment, the acquiring of which many times over burdens the practitioner and the lack of which makes his conclusions fallacious, would then be supplied at public expense.

In several of the older countries the question of contract practice under state insurance of employees has been an intricate and vexing one, and is justly opposed as a poor substitute for state control of health and sanitation more fundamental and comprehensive. In our country the insurance companies and corporations through a financial interest in the assured and employee are tending to assume this same task. For the good of all concerned this must not happen. We must awaken to the real trend of things and meet it in the right way.

It may be early to advocate the suggested innovation but the problem will soon press for solution, and this seems to be the natural line of development. The altruism of medicine is guarding it from gross abuses. The law of necessity is operating and out of the circumstances will be evolved a condition in harmony with modern civilization and requirements.

SOME THOUGHTS ON EVERY-DAY SURGERY*

MAURICE DUANE BIRD, M.D.
Marinette, Wis.

Without doubt, the medical man's plans for the day are more subject to change than any other worker. He may have his call list well arranged and fixed in his mind and his day's labor planned, when without warning a cry for help is sent in, some one has been badly injured, come at once!

The doctor who has his work well in hand has his grip ready packed, in fact several, for different purposes, so that little time will be lost in getting under way. Here indeed, is a severe test on the resourcefulness of the man in charge; the one hurt may be only slightly injured and more tact will be needed to care for the anxious parent or friend than skill in repairing wounds. Then again the injury may be severe or fatal and ones judgment must be quick and forceful, instead of assuming a wavering position. He must take charge and give the patient the best aid possible under the circumstances.

I take it that most of us present are in general practice and are all subject to the conditions mentioned. I have thought it might be of interest to report from the records of the Marinette Hospital the traumatic injuries of the past year.

There were cared for 150 accidents, considered severe enough to report to the Board of Health, and that means the patient will be disabled for at least ten days. There were sixty-seven lacerations, forty-eight contusions, twenty-seven fractures, seven amputations, five ankle sprains, three severe burns. Among the contusions of interest, was a patient who had a severe blow in the upper abdomen and nearly died from shock. At first I was fearful of an internal hemorrhage, but he cleared up and made a good recovery in a few days under expectant treatment.

In the case of open wounds, we attempt to secure a primary union, cleanse the wound with forceps, curet, the free use of tr. Iodin; suturing muscles with catgut, the skin with silk and if not too great oozing a dry dressing of plain sterile gauze. If there is much discharge, a wet bichlorid dressing for the first, and hot boric dressing for subsequent changings. Every one has noticed with what ease most open wounds of the scalp heal, and the same thing applies to the fingers unless they become infected when we may have all kinds of trouble, even including death.

The three severe types of infection of the hand are: 1, lymphangitis; 2 tenosynovitis; 3, fascial space infection.

LYMPHANGITIS

Lymphangitis may be either superficial or deep. Deep lymphangitis may end in tenosynovitis or abscess formation in the deep tissues. There is rapid increase of swelling of the whole hand and arm, with the greatest swelling, redness and tenderness on the dorsum. Some red lines of lymphatic infection may be seen running up the arm, to the elbow or axilla. There is an absence of pain on extension of the

* Read at the Twentieth Annual Meeting of the Upper Peninsula Medical Society, Menominee, Aug. 7 and 8, 1912.

fingers and thumb. The fingers can be moved freely without pain and there is an absence of tenderness over the tendon sheaths and the middle palmar and thenar spaces. There is an absence of bulging of the palm. This train of signs and symptoms generally follows a slight laceration, abrasion or puncture. The swelling varies with the site of invasion. The lymphatics pursue the shortest course to the back of the hand. Bright-red streaks will show up on the dorsum running up to the axilla, where the infection is emptied into the circulation.

TENOSYNOVITIS

Tenosynovitis is characterized by: 1. Exquisite tenderness over the course of the sheath. 2. Flexion of the finger. 3. Severe pain on extending the finger. In opening a collection of pus that has passed beyond a local infection and incision of the finger does not stop the invasion, the radial or ulnar bursa should be incised laterally, never through the tendons anteriorly or posteriorly, where the pus can be pumped into the sheaths of the forearm, where it surely will be extended.

FASCIAL SPACE INFECTION

Pus may be found in various spaces of the hand and forearm, either as a primary infection or secondary to lymphatic or tendon sheath infection, especially the latter.

Kanaval enumerates five: 1, middle palmar space; 2, thenar space; 3, hypothenar space; 4, dorsal subcutaneous space; 5, dorsal subaponeurotic space. The thenar and middle palmar spaces are by far the most important in the hand. In the forearm, pus extended from the hand always lies under the flexor profundus, on the pronator quadratus and intermuscular septum. It passes upward following the ulnar artery, going as high as the elbow.

The greatest swelling does not necessarily indicate the position of pus, the excessive swelling comes in those areas where there is the greatest amount of loose cellular tissue, that is on the dorsum, while in nine cases out of ten the pus is on the flexor surface. The site of greatest tenderness is of great importance.

In regard to fractures, in our series, the leg led off with twelve, three of the neck of the femur, two of the shaft; the small bones of the hand, four; arm, four; skull, six; ribs, three; collar-bone, two; jaw, one; scapula, one.

Long bones are put up with gauze, cotton, splints of paste-board or fiber boards that are made pliable by hot water, plaster-of-Paris is seldom used. In fracture of the femur, Buck's extension with long lateral splints is our choice.

The Philadelphia Surgical Society has gone on record to the effect that in fractures of the femur, with not more than an inch of shortening, the result is considered good. We make it a rule to open and wire fractures of the clavicle, it gives much better results and is easily performed. During the year we used Lane's plates twice, once on the tibia and once on the femur, giving good satisfaction in both instances. In the femur the break was about 2 inches above knee-joint, due to a kick from a horse, the fracture was compound, it was put up simply at first until the soft parts healed, then was opened and plated as the position was not good, the lower fragment being tilted posteriorly.

In the fractures of the skull, we have had some very interesting observations. Fractures of the frontal bone even with severe destruction of the brain tissue have surprised us all by the prompt and happy recovery, that over the motor area with some permanent after-effect, either epil-

epsy, defect in speech, or impaired muscle power.

The case of Dr. Harlow of Vermont, reported in 1884, stands out as a good illustration of the point I make. A laborer, 28 years old, while blasting rock, by a premature explosion, a tamping iron nearly 4 feet in length and weighing 13 pounds was driven through the head. The missile entered the left side of head near the angle of the lower jaw and behind the zygomatic arch, passing through the skull, the anterior lobe of the cerebrum and longitudinal sinus, emerging through the frontal bone, just in advance of the coronal suture. Notwithstanding this horrible mutilation, the patient made a good recovery and survived his injuries many years without any impairment of mental or physical powers except the loss of the left eye.

Two or three years ago we had a patient who suffered a severe compound fracture over the left rolandic area. The missile that caused the injury was a heavy stick with an arm at right angles. I removed the débris from wound, which was 2 or 3 inches in the brain matter and pieces of the skull, as large as the palm of one's hand. He was unconscious for a week, with partial paralysis. I have seen him at different times since, he has had a few epileptic seizures and his speech is impaired. The scar was dissected out at a later day, which improved his condition, otherwise he is quite normal. We had two other cases that died, in which the skull was fractured at the base as well as the vault, both passing away within a few hours.

There is another class of patients who do not have convulsions after head injury, that do not get well without surgery. I mean the cases that appear to be injured slightly, but later develop a pachymeningitis or a subcortical cyst, these patients may become insane or develop viciousness of a variety of types. Dr. Dudley P. Allen of Cleveland analyzed a dozen of these cases a couple of years ago.

In rupture of the middle meningeal artery, in which the patient gets up after a fall or blow, says he will be all right in a few minutes, but later lapses into unconsciousness or coma. If away from a hospital and trained help, the external carotid may be tied under cocain. This stops the hemorrhage and you have control of the situation as the middle meningeal artery is a branch of the internal maxillary which is a subdivision of the external carotid, this is a terminal vessel, then one can elect his time to do the trephining.

Ankle sprains are not uncommon and often cause the surgeon uneasiness, because they repair slowly. It is my practice to strap them with adhesive tape, apply hot applications over it and place the foot at rest with elevation. I feel this is much better treatment than placing the member in a plaster cast.

I suppose there are as many ways in caring for burns as there are hairs on the back of some of my associates' heads, and all more or less unsatisfactory. Most likely in first degree burns, picric acid well diluted and applied in wet dressing gives the greatest satisfaction after the acute pain has subsided, the first dressing being carron oil in my service.

If the wound is deep and quite extensive, I believe the best dressing is imaginary, that is no dressing at all, bathe the parts with warm boric solution and let the serum form the protection, the clothing being supported by hoops. If one feels a dressing must be used, the one used in the Peshtigo fire, very largely, by Dr. Jones, was 2 per cent. carbolic acid in castor oil, then dusting the surface with subnitrate of bismuth.

In third degree burns it is well to start skin grafting as soon as the wound can be cleaned and a favorite method of mine is to cut gutta-percha tissue in ribbons, keeping the ends in tact, in this way we have good drainage and the grafts are protected from the gauze, which does not come in contact with the skin.

Death, when it occurs, results from shock, after reaction, from congestion of internal organs produced by reflex vasomotor paresis, or from these congestions going on to actual inflammation of the pulmonary or gastro-intestinal mucous membrane.

After suppuration is established, exhaustion, erysipelas, pyemia or septicemia, are the terminal conditions. Edema of the glottis and perforating ulcer of the duodenum are not infrequent.

OPEN WINDOWS

With the approach of cold weather, we are facing the season when many people tightly close all windows in the house and keep them closed day and night. This habit is the cause of much illness. We need air and we need fresh air. A great many people think only of warming their houses without any reference to the way in which it is done. During the daytime when we are in our living rooms, without wraps and not prepared for the cold, it is reasonable to expect that the windows will be kept closed or nearly so most of the time, but there is no reason why the rooms cannot be flushed with fresh air at intervals. Every house should be thoroughly aired out several times a day, and yet we all know people of considerable intelligence in whose houses the windows are never raised during the entire cold season. The custom of opening windows in our bedrooms at night is gradually gaining foothold. Time was, and not very long ago either, that people were afraid of "taking cold" if they allowed their windows to remain open because of the fact that night air would enter the bedrooms. It has been positively established that night air does not differ from day air except that it is freer from dust and smoke, otherwise it is exactly the same thing, and as some sanitarians have put it "the only night air that is dangerous is last night's—open the windows and let it out." There is no occasion for any one being afraid of a draft if they are warmly covered up in their beds at night, the fact that the cold air blows about in the room, does not bring with it the result of making people ill, but on the contrary keeps them in the best of health by assuring them a sleep which is restful and refreshing. This is not an idle theory; it has been tried by a large number of people, and they all agree that they feel much better if they sleep in rooms in which the windows are wide open than in tightly closed rooms. Try it now. The weather is not so cold that it will be disagreeable at all to make the experiment even if you have not done it previously and by the time the weather gets severely cold, you will have become accustomed to it, and so strongly in favor of it on acount of your improved health, that you will refuse to shut your windows even in zero weather.—*Bulletin Detroit Board of Health.*

PAYING THE DOCTOR

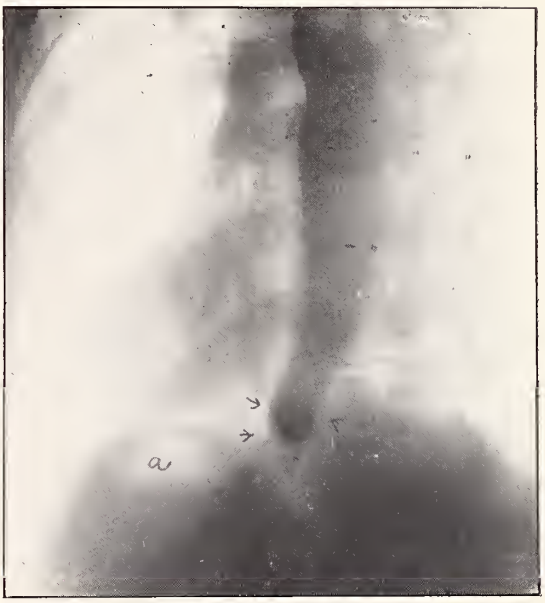
The tremendous shindy between the British government and the British Medical Association over what compensation doctors should receive for furnishing the free medical attendance promised by the National Insurance Act has led to an examination of the books of some two hundred typical doctors in five typical cities. The examination was made by the Institute of Chartered Accountants, and its chairman reports that the professional income of the physicians, after deducting bad debts, amounted to four shillings and two pence a head of the population. Allowing for difference in cost of living in Great Britain and the United States, this would be equivalent to about a dollar and a half a head here. Perhaps professional fees are somewhat higher with us. On the other hand, the good-natured habit of neglecting to pay the doctor's bill may be somewhat more prevalent, and it may be doubted whether our physicians average more than two dollars a head of the population in actual cash.

Medical opposition to the insurance act seems especially short-sighted. Whatever tends to make the physician a public servant can hardly help but tend to elevate the profession.—*Saturday Evening Post.*

Lantern Slides Illustrating Roentgen Diagnosis of Diseases of the Stomach

By Preston M. Hickey, M. D., Detroit, Mich.

I. Cardiospasm. Male, age 30; history of delayed deglutition for two years; has lost 40 lbs. Plate shows marked dilatation of the oesophagus with typical pointing of the cardiac end (indicated by arrows).



II. Organic Stricture of Oesophagus. Male, age 45; has had difficulty in swallowing for over one year. Roentgen findings are dilatation of oesophagus, with bismuth held at the lower end in rounded mass, characteristic of organic stricture, in contrast to the pointed appearance of cardiospasm. Examination verified by oesophagoscope.

III. Neoplasm at lower end of Oesophagus. Male, age 60; has had difficult deglutition for months, with recent loss of weight. Roentgen findings are dilatation of oesophagus with rounded appearance at lower end. Exploratory operation showed hard mass encircling the lower end of the oesophagus, probably carcinoma.

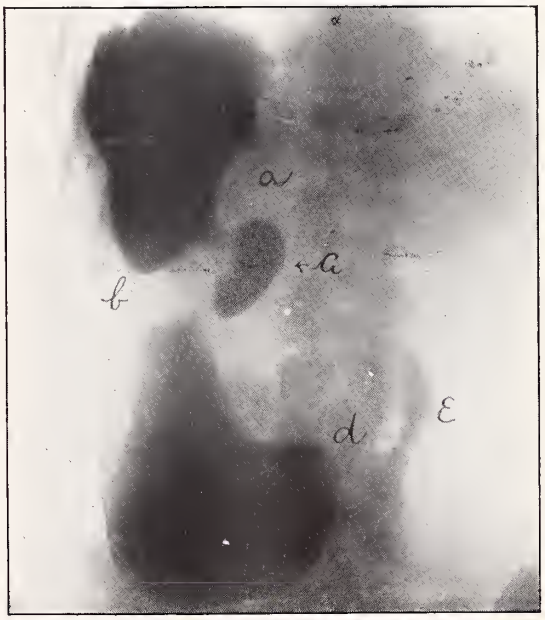
IV. Carcinoma of Stomach. Male, age 40; for last nine months discomfort after eating with nausea. Roentgen findings show lack of filling of the lower part of stomach by bismuth. Arrows indicate encroachment of stomach by the growth. Exploratory incision showed inoperable carcinoma of lower half of the stomach.

V. Carcinoma of Stomach. Patient with history and chemism of ulcer. Roentgen findings on two separate occasions show defective filling, suggestive of neoplasm. Operation showed growth in serous and muscular wall of stomach probably secondary, with mass so extensive as to preclude a gastro-enterostomy. Arrows show encroachment of neoplasm.

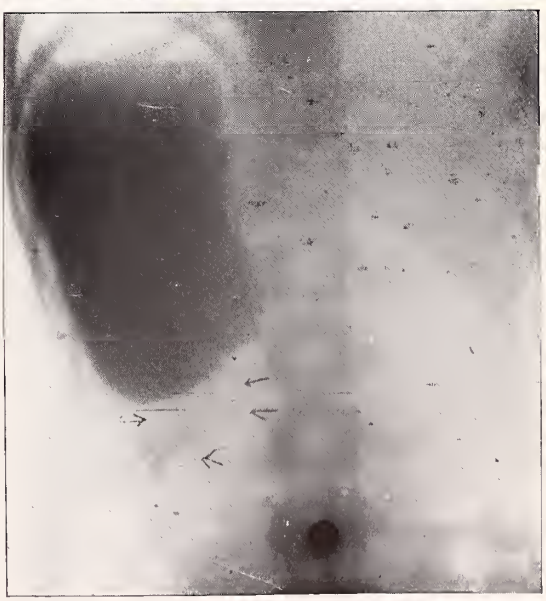
VI. Carcinoma of stomach. Male, age 50; has had so-called indigestion for several months. Roentgen findings are defective filling of lower third of stomach. Arrows show area involved. Exploratory incision shows advanced carcinoma, too advanced for gastro-enterostomy.

VII. Simple Dilatation of Stomach. Patient always enormous eater. Roentgen findings show a large stomach with regular outlines and well filled duodenal cap (a). Pylorus at b.

VIII. Perforating Ulcer of Stomach, with hour-glass appearance. Female, age 33; gives long history of ulcer of stomach. Roentgen findings show bismuth divided into three parts; a and b show areas of scar tissue dividing stomach; c is cul-de-sac formed by perforation; e is duodenal cap. Verified by operation.

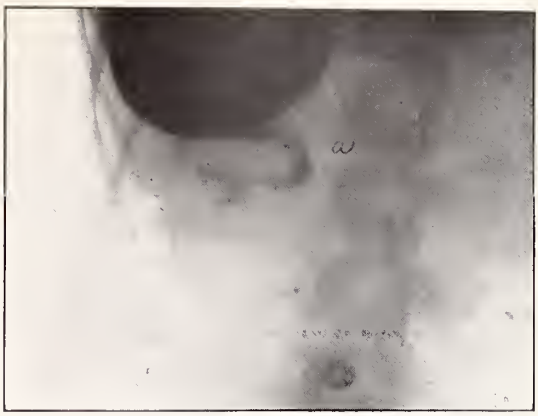


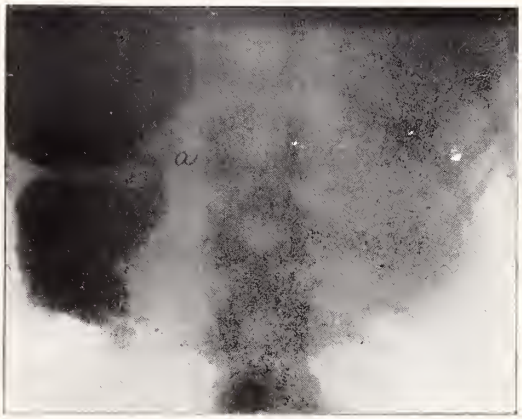
IX. Hour-glass Stomach. Female, age 33; gives history of ulcer dating back 20 years. Roentgen findings on first plate show large vertical stomach with slight escape at lower pole. (See Plates No. X, XI, XII, XIV.)

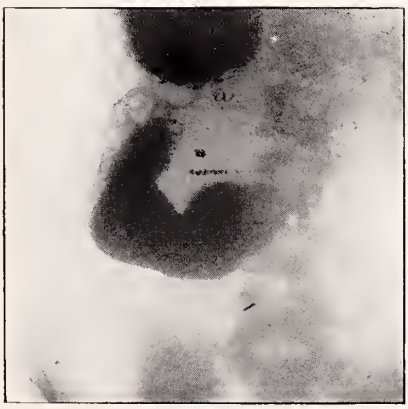


Hour-glass Stomach.
(Continuation of Case No. IX.)

Plates 10, 11, 12 and 13 show the various stages in the filling of the lower division of the stomach. The isthmus between the upper and lower segments is indicated by the letter a. In the last plate we find the normal pylorus and well filled duodenal cap. This is one of the few cases in which one may make a diagnosis from the plates alone.







SOME EMBRYOLOGIC, ANATOMIC, HISTOLOGIC AND CLINICAL FACTS CONCERNING THE THYROID GLAND, WITH SUGGESTIONS AS TO PRACTICAL APPLICATION*

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The great and growing importance of the subject is sufficient warrant for a cursory review of the embryology, anatomy and physiology of the thyroid.

A ductless gland when developed, it has, early in embryonal life, a duct (the thyroglossal). Remembering this embryologic fact will help to explain many of the cysts, tumors and fistulas in this region.

The thyroid has three points of origin: first, an unpaired evagination of epithelium in the front wall of the throat at the second visceral arch, and second and third, the two fourth visceral clefts. These three points of origin converge and finally there is a more or less complete coalescence of the three parts. Figure 1, borrowed from Ochsner and Thompson's book on the Thyroid and Parathyroid Glands, is a schematic representation of the origin of the different branchial epithelial bodies. At first the proliferating cell masses form solid cords, but as development progresses the cells become separated in round masses with a lumen filled with a secretion, colloid, from the cells. The cells lining the follicles may, in the adult, be either columnar, cuboidal, or flat (Fig. 2). On the number and arrangement of these cells in the follicles as well as the character of the secretion depends perhaps the symptoms present in a given case of thyroid disease. To this we shall refer later.

The follicles of the thyroid are held in a frame-work of connective tissue bearing the blood and lymphatic vessels. Between the follicles there are frequently found fetal rests and it is the overgrowth of these that produces the so-called fetal adenoma of the thyroid (Fig. 3). In passing it is worthy of mention that the thyroid is the only vital organ in the body unprotected by bony surroundings. It seems strange that the abundant blood-supply of the thyroid and the free anastomosis of its vessels did not lead to an earlier discovery of the importance of the thyroid secretion than obtained.

It has been estimated that all of the blood in the body can pass through the thyroid in an hour or less. In doing thyroidectomy one frequently finds the hemorrhage from the distal end of a divided artery quite as free as that from the proximal end.

The possible existence of the thyroidea-ima should be borne in mind together with the extreme probability of its enlargement after ligation of one or more of the other thyroid arteries.

Figure 4 taken from Deaver's Anatomy, illustrates the blood-supply of the thyroid

* Read before the Kent County Medical Society, Nov. 13, 1912.

very well. The lymphatic circulation of the thyroid is very free also. Quite frequently during a thyroidectomy the lymphatic vessels may be seen plainly. In operating cases for hyperthyroidism these lymphatics, when seen, should, like the blood-vessels, be clamped or ligated to prevent an overdose of thyroid secretion being thrown into the circulation during the operative manipulation. The parathyroid bodies and the recurrent laryngeal nerves lie behind the thyroid and may be avoided during removal of the thyroid

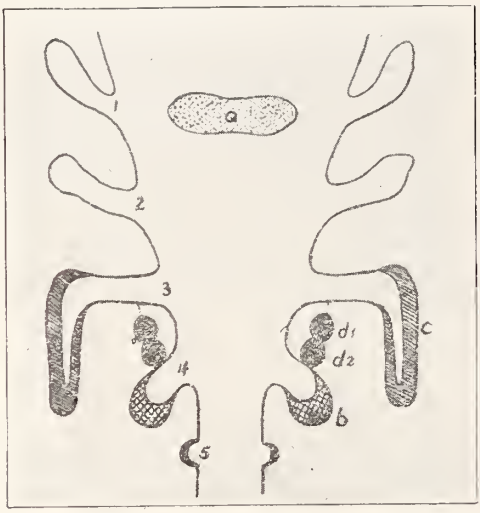

Fig. 1.—Scheme of origin of branchial epithelial bodies; 1, 2, 3, 4, 5, branchial grooves; a, median thyroid; b, lateral thyroids; c, thymus; d1, outer parathyroids; d2, inner parathyroids; 5, rudimentary parathyroid of Getzowa.

by careful dissection made outside the capsule (Crile), or by leaving the posterior capsule *in situ* (Mayo), or by doing an intracapsular operation (Wathen).

A functionating thyroid is necessary to life, a perfectly functionating thyroid is necessary to health. It seems proven that the thyroid is an active antagonist of all infections and many toxemias.

The clinical picture of cretinism, due to relative absence of thyroid activity in early life, and myxedema due to a like condition obtaining later from disease or operation, are too well known to require more than mere mention here.

Disease of the thyroid is more common in women than in men. Hyperthyroidism is four times more frequent in women than in men. The thyroid is enlarged during menstruation and pregnancy. Women suffering from hyperthyroidism improve during pregnancy and relapse after confinement. Iodin acts as a stimulant to the thyroid which probably accounts for the prevalence of thyroid enlargement in residents of the seashore where the air has a relatively large iodin content.

Increased thyroid secretion causes ema-

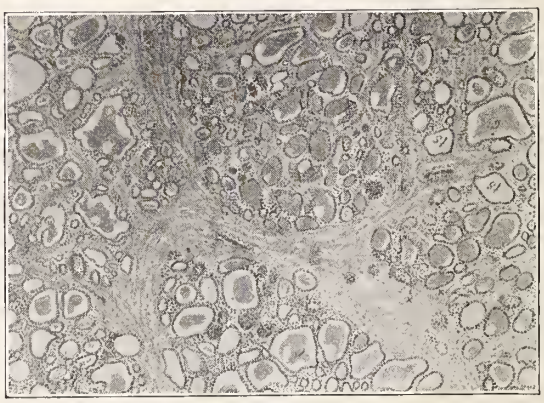

Fig. 2.—Normal thyroid (Sobotta).

ciation while decreased thyroid secretion leads to obesity. The thyroid becomes less active after the menopause and most women at this time take on fat.

Enlargement of the thyroid during pregnancy seems to be physiologic and is essential to the growth of the fetus and the health of the mother. In certain invertebrates the thyroid is a sexual organ and empties through a duct into the genital tract. Thyroidectomizing pregnant bitches causes them to bring forth rachitic pups. The toxemia of pregnancy may often be relieved by administrating thyroid. Hyperthyroidism causes anemia and the administration of thyroid in chlo-

rosis is more effective than the administration of iron. Normal function of the thyroid seems necessary to perfect nitrogenous metabolism, meats stimulate the thyroid hence we deprive patients with Graves' disease of meat and the man past 60 is known to require but little. The tendency to increase in blood-pressure after 45 is probably due to hypothyroidism.

The apparent size of the thyroid is no criterion of its activity. Apparent atrophy may coexist with hypersecretion and hypertrophy with hypothyroidism. As stated above the activity of the gland seems to depend on the amount of lymphoid tissue and amount and character of

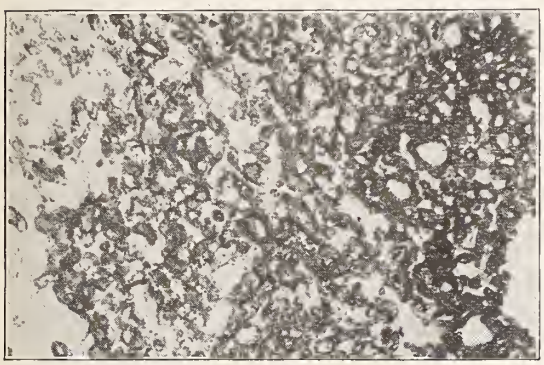

Fig. 3.—Fetal adenoma of thyroid (Wilson).

the colloid. Not infrequently one sees a patient with a small thyroid presenting symptoms of hyperthyroidism, and much more frequently patients with large thyroids suffer from hypothyroidism. The thyroid may be the seat of neoplasms, carcinoma and sarcoma, it may be inflamed with or without abscess formation.

Tumor and cyst formation may cause enlargement of the thyroid, as may also (a) hypertrophy of the glandular tissue, (b) increase of connective tissue, (c) dilatation of the blood-vessels. Inflammation of the thyroid is rare, so too are neoplasms, while cysts of the thyroid are quite common. Cysts and tumors of the thyroid may cause hypersecretion by irritation. Connective tissue enlargement of the thyroid sooner or later means lack of thyroid activity just as connective tissue increase in the liver or kidney eventually means lack of liver or kidney function.

Hyperthyroidism usually means later on hypothyroidism. It is probable that all cases of myxedema were primarily hyperthyroidism. Symptoms of hyperthyroidism and hypothyroidism may be present in the same patient at the same time. The thyroid secretion is probably a complex one and there may in a given case coexist hypersecretion of certain elements and

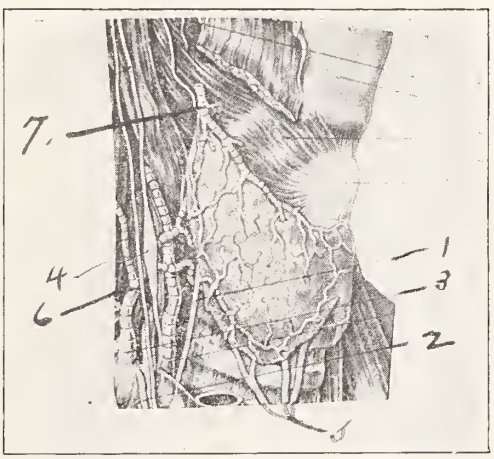

Fig. 4.—Modified from Deaver, showing arterial supply and other important surgical anatomical points of the thyroid gland. 1. Recurrent laryngeal nerve. 2. Pneumogastric n. 3. Thyroid axis (a). 4. Sympathetic ganglion. 5. Inferior thyroid veins. 6. Inferior thyroid artery. 7. Superior thyroid artery.

hyposecretion of others. It is not probable that an excess of the same ingredients is responsible for the exophthalmic goiter in one case and its absence the cause of myxedema in another. We can do no better at present than to refer to Graves' disease and myxedema as respectively hyperthyroidism and hypothyroidism, but further chemical studies will probably show that the problem is by no means so simple as these terms would indicate. The increase or the decrease of the activity of the thyroid seems however to depend on,

or to be accompanied by, definite histologic changes.

Hyperplasia of the cells lining the follicles of the gland, with a tendency to papillae formation, and a production of a thin easily absorbed non-stainable secretion, is the histologic picture of the overactive thyroid. If coupled with this picture there is evidence of marked cytolysis we have the picture found in the very severe cases of Graves' disease (Wilson) (Figs. 5 and 6). In the simple goiter there is the picture of the degenerated epithelium, filled with thick stainable colloid (Figs. 7 and 8). In hypothyroidism there is increase in connective tissue with degeneration of the epithelium.

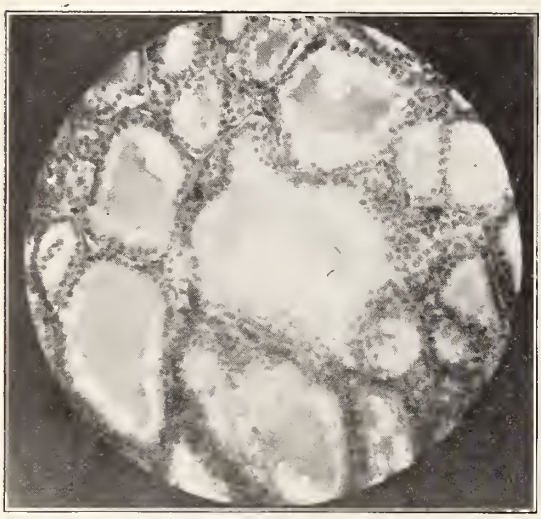

Fig. 5.—Hyperactive thyroid from a female patient presenting moderate symptoms of hyperthyroidism; × 265 (Rhamy).

Fig. 6.—Same as Fig. 5; × 55 (Rhamy).

The cytolytic areas, however, can produce no more secretion, and if a patient possessing a thyroid largely thus involved, can withstand the intoxication resulting from absorption of the poison already liberated, he will recover or possibly pass into the state of hypothyroidism.

In other words, the cytolysis indicates that the gland has been overactive rather than that it is overactive. Hypersecretion requires living active parenchyma such as is shown in the follicles lined by two or more layers of cells and those wherein is seen the formation of the papillae. (Here the author explained numerous enlarged photomicrographs showing the histologic changes to which allusion is made above.)

HYPERTHYROIDISM

Graves and Basedow described what might be termed the terminal symptoms of hyperthyroidism. Long continued hypersecretion of the thyroid leads to irremediable tissue changes, and therefore, to be entirely successful, treatment must be instituted before these changes take place. Treatment begun later may stop further degeneration, but cannot, of course, replace degenerated tissue. To restore an alcoholic to health it is necessary to stop the taking of alcohol before permanent tissue changes have advanced to a point where adequate liver or kidney function, for instance, is impossible. So in hyperthyroidism if we restore the patient to health we must stop the hypersecretion of the thyroid before it has produced myocardial, arterial and other degenerations.

Many so-called neuroses, such as hysteria, menstrual disturbances, nervous dys-

pepsia, palpitation of the heart, trembling, ephemeral tachycardia, attacks of asthma, of acute mania, etc., are the result of excessive or perverted thyroid secretion, and in a given case if these symptoms are aggravated by nervous excitement, tea, coffee, alcohol, iodids and especially thyroid extract, the inference is warranted that we are dealing with a case of hyperthyroidism. With no other disease or condition can a patient have a comfortable tachycardia of 120 to 140. Cushing and others have called attention to the close relationship existing between all the ductless glands. It is probable, if not proven, that no serious disturbance can occur in one of these glands without influencing all the others. As noted in the earlier part of this paper clinical observations point to a very close relationship between the thyroid gland and the sexual organs, especially in the female. The close relationship between the hypophysis and the thyroid has been especially emphasized by Cushing.[1] This close relationship between the ductless glands must be constantly borne in mind when studying the diseases of any one of them if we hope to make satisfactory progress. Furneval found only five normal thyroids in twenty-four acromegalies, and in eighty-five goiter subjects Schöneman found but one normal pituitary gland. It is quite possible that an inflamed ovary or testicle may be the cause of the symptoms of hyperthyroidism in a given case. In the study of a case in which the symptoms of hyperthyroidism are suspected of resulting from ovarian or testicular irritation, a rational therapeutic test would be the administration of ovarian or testicular extract, when, in case the suspicion as to the cause of the trouble is correct, there should be an exaggeration of the symptoms. On the other hand the removal of the source of the irritation when consistent and rational, such as temporary separation of husband and wife, should cause an amelioration of the symptoms. It is very probable that the chief therapeutic factor in the so-called "rest treatment" of hyperthyroidism is absence of sexual excitement.

Fig. 7.—Simple goiter. Removed on account of deformity. Symptomless; × 265 (Rhamy).

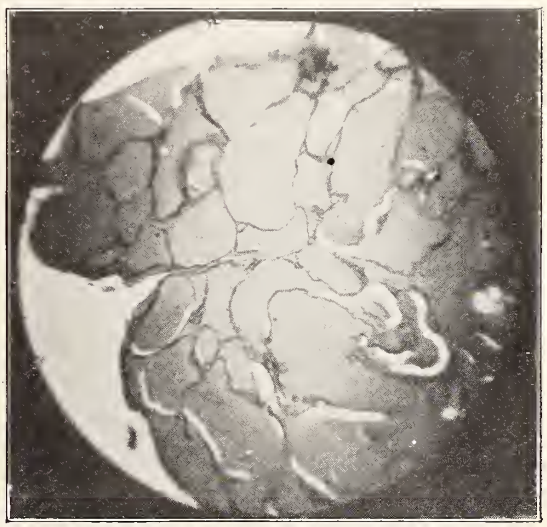

Fig. 8.—Same as Fig. 7; × 55 (Rhamy).

I have had several cases which lend color to these views. One was a recent wife who prior to her marriage enjoyed

1. Jour. Am. Med. Assn., 1909, liii, 249.

good health but had a perceptible thyroid and was as she said "rather nervous." Immediately after marriage she developed marked symptoms of hyperthyroidism. In spite of the usual treatment at home these symptoms failed to improve. A few weeks stay in the hospital resulted in a great improvement. Now, after several months at home with her husband, she remains perhaps slightly more "nervous" than prior to her marriage. She remains sterile to date. I conceive it possible that pregnancy carried to term would cure this patient.[2] There is much clinical evidence in support of these views. A paper by Godell and Colon,[3] published since this paper was nearly completed, is a valuable contribution to the subject. I would also refer here to a series of articles on the thyroid published in *The Journal of the American Medical Association* under the caption of therapeutics,[4] and to Marine and Lenhart's[5] article on "The Relation of Iodin to the Structure of Human Thyroids."

Permit me, in closing, to say a few words on the subject of treatment of hyperthyroidism by injections of boiling water into the gland. The first few cases treated by me in this way were reported in *The Journal of the American Medical Association,* Sept. 30, 1911. Since that time I have treated a number of additional cases. There have been no untoward results. It has not been possible to follow all the cases, most all of them, however, I have been able to keep track of, the results have been very satisfactory. Case one, for instance, in my former report which was cured by one injection of 40 minims, remains well to-day. One of the later cases occurred in the practice of Dr. Duemling; she was lying in the hospital too sick, in the doctor's opinion, for even so slight an operation as ligation, with a very weak and rapid pulse. At my suggestion the doctor injected boiling water into the gland. There was prompt improvement, the pulse going down to 78 and the woman left the hospital declining any further treatment.

By animal experimentation and by the injection of goiters after removal, it has been demonstrated that the boiling water destroys the thyroid cells. The treatment is as yet on trial, a larger number of cases will have to be accumulated before the final verdict can be announced. Up to date the outlook is very promising. Local anesthesia of the skin reduces the pain to a minimum. The treatment does not require the patient to remain in bed. The injections must be made within the capsule of the gland, and if necessary to make sure of this a buttonhole incision may be made (under local anesthesia) down to the capsule. Injections may be made at two or three points at one sitting, the quantity of each injection varying from 100 to 300 or even 400 minims, owing to the size of the gland. A slight temporary eschar is produced by needle punctures; later these disappear.

This treatment seems especially adapted for mild cases on the one hand, and to very severe cases on the other. The mild cases it seems may be promptly cured, and the severe ones if not cured rendered safe operative risks. It goes without saying, of course, that the immediate vicinity of the large vessels, the parathyroid glands and the laryngeal nerves must be avoided.

2. At the present time this woman is about five months pregnant and is enjoying better health than she has known for years.
3. Surg., Gynec. and Obst., 1911, xii, 457.
4. Jour. Am. Med. Assn., lv, Nos. 23, 24, 25, 26.
5. Arch. Int. Med., iv, 440.

THE DISTURBANCES OF THE MOTOR FUNCTIONS OF THE STOMACH

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The beginning of the development of the gastro-intestinal tract is one of the earliest events of embryonal life. There is an inflection of the hypoblast extending from the cephalic to the caudal extremity and situated just below the primitive vertebral column. It may be described as a closed straight tube having two constrictions which divide it into three compartments, the first or cephalic being called the foregut, the posterior part or caudal fold the hindgut, and the central or middle portion the midgut. In early embryonal life the extremities of the tube do not communicate with the surface of the embryo, the buccal and anal orifices are later formed by the involution of the epiblast which communicates with the gut.

In considering the subject of gastric motor insufficiency we shall deal with structures developed from the foregut only; from this are formed the pharynx, esophagus, stomach and duodenum with their appendages. The first indication of the differentiation of the stomach from the remainder of the tract is the dilatation of the midportion of the foregut. This portion of the foregut is attached to the vertebral column by a mesentery and, as a pouch is formed, the dilated portion is swung to the left, the anterior border being directed to the right. Up to this time the tube is straight but it soon undergoes a lateral curve or bend to the right near the upper end of the pouch and thus assumes an oblique direction. The portion of the foregut above this dilatation remains straight and forms the esophagus and pharynx but as the mesoblast is here undivided there is no serous investment in this part of the tube.

The portion of the foregut below the stomach forms the duodenum and from this the liver and pancreas are developed. The liver appears about the third week as a mass of cells consisting of hypoblastic and mesoblastic layers and projecting from the duodenum. This mass of cells becomes hollowed out into a cavity which eventuates into the common bile duct and from which on either side are developed masses of liver cells which become the right and left lobes. The gall-bladder appears about the second month as an extension of the cavity which represents the future common bile duct, this being also an extension or branch from the gastro-intestinal tract.

The pancreas is originated similarly to the liver by evagination of the dorsal wall of the foregut. The stalk of the diverticulum becoming the duct of the mature gland.

The stomach is a sac-like dilatation of the digestive tube intervened between the esophagus and the small intestine from which it is sharply marked by two distinct thickenings of the middle or circular muscular layer namely the cardiac sphincter and the pylorie sphincter. The right margin of the esophagus seems to be continued into and form the upper two-thirds of the lesser curvature. The greater curvature which begins at the cardiac orifice

(which is located on a level with the tenth or eleventh dorsal vertebrae, behind the articulation of the seventh costal cartilage and the sternum and is the most fixed portion of the stomach) passes upward and backward to the left at a somewhat acute angle with the esophagus, coming in contact for some distance with the under surface of the diaphragm, and then drops downward and to the right and then upward and backward to terminate in the small intestine at the pyloric thickening of the circular muscular layer which ordinarily when the stomach is empty may be located 1 inch below and a little to the right of the tip of the ensiform cartilage.

The musculature consists of three layers namely a longitudinal, circular and oblique which are arranged in such a way as to obtain the greatest possible advantage in the function which they are to perform. The external or longitudinal layer is a continuation of the longitudinal fibers of the esophagus and radiate over the entire surface but are most distinct at the curvatures; the circular or middle layer is a continuation of the circular layers of the esophagus and extends over the entire stomach with more or less abundance in different regions; internal to the circular layer are found oblique fibers which encircle the upper portion of the stomach but in the lower part become continuous with and reenforce the circular layer, the longitudinal and circular layer become continuous with the corresponding layers of the small intestine which are also continuous with corresponding layers extending up the common bile duct and in the wall of the gall-bladder.

The gastric nerve supply comes from the right and left pneumogastric and the solar plexus. The peristalsis results from stimulation of Auerbach's plexus, which stimulation according to Magnus "produces excitation above and inhibition below the excited spot." Conon claims that reversed peristalsis cannot occur with "the reflex mechanism intact." Conon also states according to Gray, that cutting the vagus or splanchnic nerves does not destroy the reflex mechanism of the pylorus, but nevertheless it is markedly affected by the central nervous system.

From a physiological standpoint the stomach is divided into two portions namely the fundus which consists of the upper two-thirds and which by some authors is divided into a fundus and a body; and antrum which consists of the lower third. At the junction of the antrum and fundus there is an exaggeration of the circular muscular fibers forming a transverse band or sphincter of the antrum and at times the contraction of this sphincter may be so marked as to divide the stomach into two cavities. Shortly after food is taken into the stomach circular contractions begin at the sphincter antri and run in constricting undulations toward the pyloric sphincter. There are from three to six of these per minute each wave taking about twenty seconds in its passage, the food being thus kept in constant circulation is thoroughly worked up and mixed with the gastric juice until it becomes a semi-liquid mass which we call a chyme, then the pyloric sphincter against which the food is forcibly driven relaxes from time to time to allow the better digested portions to pass into the duodenum. The cardiac division of the stomach with the exception of a portion bordering the transverse band takes little or no part in the peristaltic movements but simply by tonic contraction maintains a continuous pressure on its contents forcing them along into the antrum as that part relaxes and provides room for more.

When from any reason the muscular wall of the stomach is unable to expel the contents and empty itself in the normal

time the condition is known as motor insufficiency. This may be due to the weakened condition of the muscular wall so that the usual amount of force is not exhibited or it may be due to some cause which retards or prevents the progress of the contents though even an unusual or increased amount of muscular power is present; the latter may be due to pyloric obstruction or to an abnormal position of the organ and is known as relative insufficiency.

When motor insufficiency is combined with dilatation or enlargement of the stomach of the atonic type and permanent in character it is termed ectasia or as Boas more properly terms it "motor insufficiency of the second degree."

The causes of impairment or loss of muscular power may be divided into local and systemic. The gastric muscle is not unlike muscular tissue in other parts of the body in that it becomes weakened by disuse as for example in the continued use of concentrated and predigested foods or the same result ensues from long continued overwork from overeating, bolting of the food, excessive drinking of large quantities of fluid especially those containing gases, the latter being a frequent etiologic factor in diabetics and beer drinkers, improper mastication by devolving on the gastric muscle the increased work necessary for the comminution of the food and necessitating a prolonged stay of the food in the stomach is a very prevalent factor.

Atonic ectasia is a frequent finding in the insane probably due to the habit of such people of bolting their food but in some cases may be an etiological factor. Kemp reports one case of epilepsy which apparently recovered on the correction of a gastric motor insufficiency. I have seen one similar case, a young man 17 years of age was brought to me with the history of several epileptic seizures or convulsions which were typical in their nature. After these convulsions he often vomited large quantities of food which had been retained in the stomach an abnormally long time. Careful examination showed the stomach to be somewhat dilated and that there was a subacidity with a motor insufficiency. As these conditions improved under treatment the convulsions became farther apart but were not lessened in severity when they did come. It has now been between two and three years since the young man has had a convulsion and he is apparently in good health.

Professional and business men suffer from their irregular habits and rapid eating. Chronic atony of the stomach attends the preliminary stage in wasting diseases, chronic gastritis, heart disease, etc., and is often the first symptom noticed in diseases like rachitis, scorbutus, chlorosis, tuberculosis, etc. Prominent clinicians place importance on the chronic autointoxication resulting from stagnation and bacterial growth with the accompanying absorption as a factor in chronic myocarditis and of course in other cardiovascular pathological changes. It is a common factor in arteriosclerosis and chronic interstitial nephritis. A pyloric ulcer may cause abnormal retention from spasm of the sphincter thus laying the foundation for a distention and weakening of the gastric muscle; and any prolonged distention and pressure from whatsoever cause may be expected to produce the usual effect on the nerve supply as in other places and hence there would be the retardation of response of Auerbach's plexus in the gastric musculature. Another local cause in women is the loss of support of the muscle walls from repeated pregnancies or other causes allowing the intestine to sink downward. The stomach wall thus deprived of its support can no

longer support the weight of the food and must either dilate or draw the pylorus downward. This may produce obstruction by forming a kink in the duodenum.

In some cases the subjective symptoms are not confined to the stomach at all but often point to the nervous system, the patient becoming neurasthenic or melancholic. Diarrhea occurs in rare cases, constipation being the rule. In some cases there is occasional vomiting of large quantities of fluid. There are no marked peristaltic waves nor spasmodic pains in the actual atonic condition as in the stenotic type. If the insufficiency is secondary to some constitutional affection it may be overshadowed by the symptoms of the primary disease.

A typical case of primary motor insufficiency may give a history of hasty bolting of food combined with too much in quantity; this causing an exaggerated pressure on the gastric muscles with a constant demand for overexertion, the result being a weakening of the muscle with stasis of food and once stasis becomes the rule we are in sight of auto-intoxication with all its consequent results. As a result of the toxemia thus produced the same clinical picture may be found as in other chronic toxemias, namely, lassitude, headache, mental depression even to melancholia, muscular weakness, various aches and pains, loss of appetite, constipation and other subjective symptoms.

Physical examination often shows flabby relaxed muscles not supporting the viscera as a result of which often ptosis occurs, the stomach is dilated and the pyloric extremity displaced downward and to the right. This is best shown by inflating the organ with air. Food remains in the stomach an abnormally long time. One of the best methods of testing the motor power of the stomach is the test meal, Leube's being one of the oldest for this purpose. I do not approve of depending on raisins, figs or seeds as some of these may be retained in the folds of the stomach and give an erroneous idea.

Borgbjaerg who has been studying gastric motor conditions for many years uses a test meal similar to Leube's except that he includes stewed prunes and cranberry sauce, and classifies them as five, six and eight hours' retention cases, according to when 10 c.c. is found in the stomach.

Boas on the other hand prefers the Leube meal as the prunes and cranberry sauce make extra demands on the stomach and he asserts that even water alone is sufficiently instructive for the motor function. He adds 20 drops of water soluble chlorophyll to 400 c.c. of water. This is aspirated in thirty minutes and in 130 healthy individuals there was less than 50 c.c. remaining.

The salol test while not accurate, properly interpreted gives some information and is easily used. The gastric analysis may show a hyperacidity and here I would emphasize the necessity of passing the tube well down in the stomach where the greatest admixture of food and gastric juice occurs. The presence of free HCl does not prevent the formation of gas. Stagnation of the stomach contents is the chief factor in favor of the development of gas. In fact gaseous formation is often more intense in those cases of motor insufficiency in which free HCl is present.

It has been asserted by some clinicians and I believe not without reason that a motor insufficiency is often a primary cause of cholelithiasis. It is by right of reason that we assume that if one portion of a muscle or set of muscles becomes weakened and ill nourished that the continuations of this muscle tissue shall also fall below its normal functionating power and especially as in the case when the exciting stimulus is produced by the pres-

ence of chyme in the duodenum not only is the stimulus to the muscles of the biliary tract slow in coming, but when it does, the response of the atonic muscles is sluggish, hence often there is a stagnation of the bile in the gall-bladder with the dangers of stagnation very pronounced and in the incipient or non-developed cases we have many so-called bilious attacks and headaches. In cases of long standing I believe it to be a prominent etiological factor of gall-stone formation. There may be a large amount of gas even in the presence of hyperacidity if there is stagnation and lack of mixture of the contents with the secretions. In marked cases the splashing sound may be elicited an hour or two after a test meal or several hours after a full meal. In some cases the splash may be found at a level or below the umbilicus indicating a dilatation and a possible ptosis. Auscultatory percussion properly used is a valuable aid in outlining a stomach. If one is certain of his amounts and that he can obtain all the contents aspiration and comparison of the amounts taken and aspirated are excellent methods in connection with the other findings and symptoms. The urinary findings are very variable in the same patient. Indicanuria is very frequent.

The prognosis is favorable in uncomplicated cases under proper treatment. Stagnation of the contents of the alimentary canal is prolific of more symptoms and is more often miscalled and badly treated than all the other ailments to which the human body is heir. Conditions arising from motor insufficiency have been named almost everything in the nomenclature of the gastro-enterologist and it is comparatively recent that proper emphasis has been placed on it. Nearly everything in the pharmacopeia has been recommended and quacks and charlatans have converted the opportunity to prey on these patients into an Eldorado.

In no other part of the body must the physician use more judgment and care in deciding on the course of treatment. In some cases a change in the diet and manner of living may be all that is necessary while in others the patient should thoroughly understand at the beginning that a prolonged course of rigid treatment will be absolutely necessary for a recovery. Here I can only deal with some general ideas of treatment which if I may be allowed to repeat, require the greatest amount of individualization. The habits of life should not be in the extreme in any direction but should be moderate and well directed in everything. Out of door exercise, such as walking, riding, rowing, playing golf, etc., under proper restraint is indicated. Severe strain or overwork either mental or physical are to be avoided. Where the abdominal viscera lack the proper support of the abdominal muscles a properly fitted bandage should be worn.

Kemp recommends a Rose plaster but this becomes very disagreeable to the patient if worn continuously. A fluoroscopic examination of the patient before and after fitting a bandage will give some idea as to the service it will give.

The greatest importance should be placed on proper dental care that any source of bacterial contamination of ingoing food may be eliminated. It is my custom to have these cases undergo thorough examination by a competent dentist and by competent I mean it in its fullest sense.

Laryngologists have emphasized the influence of digestive disorders on the throat and postnasal territory; ophthalmologists and otologists have shown repeatedly their effect on the eye and ear. These effects are principally due to toxins which are allowed to form in the gastro-

intestinal tract by a greater or lesser degree of stasis. Competent dentists have emphasized to the medical profession repeatedly the maleffect of oral sepsis from which there is not only some absorption but from which there is sent pus cells and hordes of bacteria which proliferate day and night developing ptomaines and toxins, the pathological possibilities of which we are coming to appreciate more and more. Oral sepsis produces great and detrimental effect in those cases of gastric atony with delayed evacuation of the stomach contents and especially is this true in pyorrhea alveolaris where the pyogenic organisms leave the mouth for greater fields of activity in the stagnant material of the stomach, and the physician who attempts by therapeutic measures directed to the stomach to correct this trouble regardless of the mouth is wasting his own efforts and the time of his patient who is rapidly striding towards a premature old age, and here I would emphasize the senile degenerative changes and complications in a prolonged case of pyorrhea alveolaris. Along the same line I would also emphasize the necessity of proper rhinological treatment in those cases of postnasal catarrh which are continuously furnishing the stomach with a stream of mucopus. In the matter of eating, thorough mastication is imperative, the meal should not be large and rather than overdistend the stomach it is better to have the patient eat less at a meal and have them oftener, giving the organ a chance to empty itself between meals.

In deciding on a diet one must recognize the importance of nutrition which in some cases demands immediate attention, as we cannot expect flabby, ill-nourished muscles to do the work required of a strong musculature and at the same time a diet must not be of great bulk. It may include in simple cases stale bread, butter, eggs, cereals, milk taken slowly, chicken, steak, fish and green vegetables. The diet should consist mainly of cooked foods. A study of the physiology of digestion shows us that liquids pass quite readily through the stomach and for that reason I am not averse to the use of soups in these cases unless there is marked ptosis or dilatation. As to the use of drugs in these conditions opinions differ. Nux vomica in large doses seems to be in general favor among gastroenterologists. The accompanying constipation demands careful attention if we are to obtain results. In a good percentage of cases cascara added to the mid-meal medicine gives excellent results. In some cases iron is indicated and should be used with careful selection. Vibratory massage is very useful as is also faradization in some cases.

DISINFECTING BOOKS

An extensive inquiry has recently been made regarding the disinfection of contaminated school and library books among the boards of health of all the states and all cities with a population over 100,000. Only nine states and twenty-five cities—those which burn and those which use steam—are taking proper precautions in regard to the danger of infection from scarlet fever, diphtheria, small-pox and occasionally measles. This is being done, however, at the sacrifice of the books. Experiments show that moist hot air at 80 C. and 30 or 40 per cent. humidity for thirty-two hours will probably destroy bacteria in closed books, even tubercle bacilli in thick layers, without injuring the most delicate bindings. As a matter of precaution, especially against tuberculosis, it has been recommended that public library books that are much in use and all school books be disinfected by this method at regular intervals. —*Lancet Clinic.*

If the mother says rheumatism of the legs, and you find spongy gums, that is scurvy.—Northup, *Archives of Pediatrics.*

THE DIAGNOSIS OF TRAUMATIC HYSTERIA*

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Hysteria as a distinct disease, with its paralysis, contractures, anesthesias, and the like, is less familiar to physicians generally than it should be. In a disease so protean in its manifestations and so simulative in its forms, yet after due allowance has been made for errors of interpretation the fact remains that there is a definite psychosis occurring in individuals of limited education and without motive who imitate diseases of which they have never heard. Owing to the fact of our limited powers of observation it is not always possible to differentiate between true hysteria and malingering, yet with infinite pains and care in our examination we can usually show the limitations of hysteria quite clearly.

The severer forms of this disease are comparatively rare in this country. At times owing to a motive the hysterical picture is mistaken for simulation and fraud; on the other hand cases of neurasthenia and hypochondriasis are diagnosed hysteria. That in functional nervous diseases a combination of hysteria and deceit are often apparently present, and when at the same time there is involved the question of a damage suit for alleged injuries the general practitioner as well as the expert cannot be too careful in the making of diagnoses.

It is to Charcot, who has most fully depicted the symptomatology of this disease that hysteria has been shown to be not a mixture of affectation, exaggeration and deceit, but a condition in which the symptoms are the involuntary expressions of a disordered mental state. Given a congenital psychopathic hysterical disposition says Haberman, with history of early psychopathic or hysterical manifestations either of symptoms or temperament, easily unbalanced by shock, stress, emotion, imitation or suggestion, we have the background of the majority of hystericals, that is, the hysterical makeup or constitution.

Charcot, Strumpell and others taught that in the development of hysteria the influence of trauma is that of suggestion. It was Charcot too, who, in 1886 showed that not only was trauma to be considered as an etiological factor but as one of the most frequent causes of this neurosis. Injury, however slight, combined with fright or emotion may produce traumatic hysteria.

That justice may not miscarry, as well as for correct diagnosis, it must be recognized that very startling symptoms can and do follow accidents producing no bodily lesion, and where the one element of fright seems to play the only tangible part.

The following case is presented somewhat in detail as it represents many of the complications of hysteria.

A woman, age 47, in menopause, married, has had eight children, three of whom are living, four died in infancy, and one died of accident. Her father is living, 73 years of age, and is afflicted with hemiplegia on the right

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

side said to be due to lightning. The mother is living and well, though subject to migraine.

The patient had the usual diseases of childhood. No serious illness, no surgical operations. Menses began at about 18, regular, but occasionally at this time she would have attacks of falling with unconsciousness. When she "came to" would get up and continue about her work. She never hurt herself falling or never bit her tongue, and was not drowsy or sleepy after these spells. During pregnancy and while nursing her children she was free from the attacks.

In April, 1909, she was suddenly called to witness the electrocution of her 10-year-old son. She saw him lying on the ground near the house in contact with an electric wire carrying 2,000 volts of current. She ran to his rescue and was seen to grasp him by the coat collar and to draw him out of reach of the wire. From the time she reached for the boy she says her memory failed her, the amnesia extending over a period of ten days following the accident. She, however, followed the boy who was being carried into the house by a neighbor. After entering the house she recognized and talked to friends and neighbors, though her manner showed emotion, at times crying, even laughing and singing. At one time, shortly after the boy had been brought into the house, she ran out of doors in the direction of the live wire saying that she did not care to live without her boy, and was only prevented from throwing herself in contact with the wire by the neighbors who restrained her. At this time she did not complain or show any sign of any burn or other lesion due to contact with the electric current.

During the summer following the accident she began to have trouble in using the right arm and leg. In the early fall she had to give up walking, though up to this time she had managed to get about by the aid of a crutch. By Christmas she became bedfast, and says she has been in bed ever since except when she is lifted from her bed to a chair. During this period of twenty-seven months in bed she claims to have had several hemorrhages at which time she would expectorate large quantities of blood. The appetite has been good. Bowels constipated.

Physical Examination.—Lying on her back in a cold room is a well nourished woman weighing perhaps 175 pounds. Her face is flushed, lips pale, the pulse and temperature is normal. Respiration 32. Arteries not palpable. Pupils equal in size, not dilated, and react to light and accommodation. No deviation of the eyes and no ptosis. The facial expression is normal, the tongue which is coated may be protruded without deflection. The voice is normal in strength but has a whining high pitched tone. On attempting to examine the chest I find a hypersensitive area over the right half of the trunk. The right arm lies motionless at the side. It seems a little cooler to the touch than the left. There is some contracture noticeable of the fingers of the right hand and of the wrist. The elbow and shoulder joints move freely in passive motion. The fingers are slightly blue increasingly toward the finger tips. The skin is smooth, and the muscles firm and of good tone. Measurements taken of the two arms show them to be equal in size. Examination of the lungs, heart and abdomen is negative. The right leg to the knee is cooler than the left, but there is seen no discoloration of the toes or foot. Measurements show the right calf and ankle to be slightly larger than the left.

The tactile sense was diminished or absent over the right arm and leg. On pricking the skin of this area with a needle she did not appear to notice it, nor could she be surprised into flinching by a needle thrust unawares. The line of anesthesia extended up the arm over the shoulder to a line even with the middle of the clavicle. In the leg it extended up the limb from the toes to a line parallel with and a half an inch above Poupart's ligament and extending over the crest of the ilium. This anesthetic area is marked by a well-defined line in both the upper and the lower extremity. There is loss of sensation to heat and cold over this same area. The face shows no disturbance in its sensation to touch, pain or temperature. The application of the faradic current to the nerve points in the muscles of both arms and legs produced prompt muscular contractions in the paralyzed limbs as well as in the other.

The arms both responded equally and normally to the triceps tendon-jerk. The forearm extensor tendon-reflexes could not be elicited. The knee-jerks responded equally and normally. Ankle-clonus was not present, and Babinski's sign was absent. The plantar reflex was absent in both feet.

The right arm was not seen to move as a whole though the wrist at one time was seen to move slightly. The patient said she could not move her right arm or leg and that she had not walked for over two years. An examination

of the back showed the skin to be healthy and there were no scars.

[NOTE.—Some interesting side light is thrown on this case when it is known that this woman at the time of my examination of her was the subject of a law suit and was seeking to obtain damages from an electric-power corporation. The following interesting items were a part of the testimony which came out at the trial and may well be considered in this connection:

1. During the summer of 1909, following the accident to her son, she was seen by neighbors and others washing clothes and performing other household duties.

2. About a month before my examination of her a neighbor saw her sitting in a chair before a window and using both of her hands in adjusting her hair.

3. Two weeks before my examination of her she was seen by two boys who suddenly stepped on the porch on an errand, to run across the room and get into bed, and then answer "Come in" to their knocks.]

I made two examinations of her a week apart. When I first saw her in attempting to raise the paralyzed leg it was flaccid, the knee bending easily in passive motion, but at the second examination the leg was rigid, and only with great force was I able to flex the knee. The plantar reflex was absent in both feet at my first examination, but in the second it was present and exaggerated in the left foot and remained absent in the right. The first time I saw her the left knee-jerk was normal and the reflex was equal to the right, whereas the second examination showed the left greatly exaggerated, but the right remained normal. When making a motion as if to tap the patellar tendon the knee-jerk responded vigorously, but with the patient blindfolded this did not again occur.

In passive movements of the right arm and in attempting to reduce the contracture in the fingers and wrist there was felt a variable degree of resistance. If the needle prick was rather deep the skin would bleed. By diverting the patient's attention from the hyperesthetic area it was noticeable that the tests applied did not produce the same effects as when she was watching our movements.

The pulse which was 80 per minute as she lay quietly went up to 110 during the time she was being tested with the needle for pain, and in five minutes it dropped to 90 per minute.

In considering the etiology of this case, and the electrical shock as a possible cause we are confronted with the fact that there was no evidence to show that she received any electrical shock. There was no burn at the supposed point of contact and none was claimed. Pearce Bailey says that high voltage currents which do not produce instant death, even though they cause deep burns, are not known to cause organic nervous disease. But the emotional or psychic shock of an electrical contact does sometimes cause functional disorders, and the more often among those not familiar with the handling of electricity. Electrical engineers often receive high currents through their bodies, but beyond the burn at the point of contact do not suffer any further inconvenience (Bailey).

In a case of true hemiplegia of two years' standing we would expect to find the reflexes on the paralyzed side much exaggerated, as well as no small amount of atrophy if nothing more than the atrophy of disuse, but neither of these are present. The absence of hard arteries or high tension pulse or evidence of cardiac lesion would eliminate the paralysis due to central lesion from a ruptured blood-vessel or from a thrombosis.

The paralysis here seen in combination with hyperesthesia and anesthesia, and having a distribution independent of the anatomical distribution of the nerves can only mean that this is a functional disease; and from the history of hysterical attacks since puberty, the gradual onset of the symptoms, and with fright, grief and emotion as an aggravating cause, the case is that of traumatic hysteria.

That this woman being of very modest mentality and education could mimic such a large number of symptoms of other diseases so successfully is giving her entirely too much credit as an actress. Although this disease is essentially simulative and its manifestations unreal and

changeable this case shows too many of the stigmata to be explained on any other grounds than that they are the manifestations of a disordered mental state. In a disorder which of itself lacks a definite physical or pathological basis the chance for a shifting changeable clinical picture is great (Bailey).

As Haberman says, in a very large, if not major proportion of cases we see at once the congenital psychopathic hysterical disposition or predisposition with mild instabilities, easily disequilibrated by shock, stress, emotion, imitation or suggestion.

This morbid emotional mental state involuntarily and unconsciously provokes a mimicry of the symptoms of other diseases. It is difficult at times to see a case like this with such changeable symptoms and at the same time consider them suffering from a condition beyond their power to control. The disease is a psychosis, a mental disease, yet not a true insanity.

KANSAS BLUE-SKY LAW

The very ingenuous statute is interesting from every angle to the laity in general and to the busy practitioner of medicine in particular. It has been in force in the progressive state of Kansas for several years to date and is proving a boon to the gullible doctor of medicine. Briefly stated, it provides for: A state bank commissioner and assistants, whose duty it is to examine all stocks, bonds, corporations and individuals offering such for sale. A fee of $2.50 is required of the applicant at the time of making application for a permit. In addition to this, the applicant must defray the expenses of such an investigation. The commissioner, who is an appointed state official, decides on the validity of the stocks or bonds, character of the agent. In case a permit is granted a sworn report of the condition of the stocks is required every six months. On account of lack of time, for investigation and business ability, the busy man ought to be vitally interested in having placed on the statute books of this state such a law against fraudulent promoters. Such a bill will be introduced at the next general assembly meeting and ought to have the active support of every member of the profession.—*Illinois Medical Journal.*

MILK CONTESTS

For some time there has been a demand for a comparison of the quality of milk produced in different sections of the country, and out of this has grown the Health Department Competition in Market Milk, and the Medical Milk Commission Competition in Certified Milk, at the International Dairy Show held in Milwaukee each year. As the milk of one producer would hardly be representative of a community and as it would be impossible to secure and ship or analyze many hundreds of samples it was decided to allow and require each Health Department entering, to submit milk produced on five different farms. The average score of all these five producers is taken as the Health Department's final score.

One year ago the Detroit Board of Health entered this contest and was fifth in the field of about twenty entries. A number of defects and mistakes were noted before the samples ever left Detroit. This year the board again entered and also the Medical Milk Commission of Wayne County, which has the supervision of the two certified farms sending milk into Detroit. Professor W. A. Stocking of Cornell University; Professor E. G. Hastings and A. C. Baer of the University of Wisconsin, and Ivan C. Weld, formerly Chief of the Market Milk Section, United States Department of Agriculture, were the judges, and awarded the first prize, a gold medal, to Detroit, on the following scores:

	Score
Harry B. Wattles of Troy	90.5
George Elliott of Troy	95.7
Silas B. Wattles of Troy	98.3
Bert Tyack of Troy	96.6
Robert Axtell of Mt. Clemens	95.0
Average	95.2

The Medical Milk Commission of Wayne County was adjudged the winner in the certified class on the entries of the Ingleside Farm and Church Farm, whose average score was 95.5, a higher average than that obtained by any other commission in the country.—*Bulletin Detroit Board of Health.*

IONIZATION IN THE TREATMENT OF SUPERFICIAL EPITHELIOMAS*

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The introduction of medicaments into the human body by means of the electric current was practiced long before the principles governing the action were understood. We find in 1883 Falvé Palaprat announcing the introduction of iodin into the tissues by electricity. In 1889 Benjamin Ward Richardson, in England, studied the means of local anesthesia by the electric introduction into the body of aconite and other drugs. In 1870 Bruns introduced iodin into the human body electrically and refound it in the patient's urine. In 1873 Munk produced convulsions in rabbits by using electrodes impregnated with strychnin.

This introduction of medicaments into the tissues depends on the process of electrolysis, which is the decomposition or dissociation of compounds into their ions, atoms or radicles and the further introduction of these particles into the tissues by the influence of the positive or negative charge of these particles.

Faraday formulated the laws of electrolysis and used the term *ion* to express the tendency of the movement toward the poles which he observed. He gave the name *anion* to ions which seek the positive pole, and *cations* to those which direct themselves toward the negative pole.

Faraday observed that the chemical actions were proportional to the quantities of electricity which traversed the solutions. He also observed that the quantities of different chemical substances decomposed by equal quantities of electricity are exactly proportional to the chemical equivalents of the substances.

There are various laws relative to the introduction of the ion in regard to the velocity, the intensity of the current, the time and the weight of the ion. In medical ionization it is necessary to know the proportion of the substance put in motion and to know the depth to which medicaments can penetrate during the time of application. Our knowledge is not complete on this subject, though Sir Oliver Lodge has given measures for hydrogen, potassium, iodin and chlorin. We cannot judge, however, from the action of ions in simple conduction, of what passes in an electrolyte as complex as the human body.

The ultra-microscopical researches on the mechanism of electrolysis by Kossogonoff give remarkable results. The ultramicroscope reveals particles of about 5 micro-microns in diameter. Applied to the process of electrolysis the ultra-microscope reveals luminous particles on the closure of the current, which pass to the negative electrode coinciding, the author thinks, with the lines joining the two electrodes. If the current is reversed the direction of the movement changes.

The author feels authorized to consider the luminous points carriers of electricity, *ions*. He disproved the presence of dust and proved that the effect of a magnetic field on the direction of these luminous particles and the rate of their movement

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

as well as other points accorded with the laws of ions or electrons.

The conduction of electricity in the body tissues is as follows: The positive electricity is transported by a procession of electro-positive ions, atoms or molecules, in the direction of the current, i. e., from the positive pole to the negative pole. At the same time the negative electricity is transported in the opposite direction by a similar procession of electro-negative ions directed toward the positive pole.

The ion then is an atom, or molecule, or radicle, with its charge of electricity. It is by this *charge* that it differs from the element in its ordinary state. As for instance if you make a solution of one of the salts of copper it will take the metallic form on losing, by contact with the negatively charged cathode, the positive charge which it had in the ionic state. The electric charge of the contrary sign is neutralized and the copper remains in the metallic—non-electric—state.

The establishment of the principles of ionic medication is the work of Stephan Leduc of Nantes who has since 1900 published many memoires on the subject. We use in ionic medication only those substances which by solution undergo dissociation or ionization. This eliminates all insoluble compounds or those which are not dissociated in dissolving as chloral, chloroform, ether, alcohol, camphor for example. All substances whose action depends on concentration are lacking in value in ionic medication.

Substances useful for ionization then are the inorganic and organic substances which fulfil the conditions of solubility and dissociation. Among these are the alkaloids of strychnin and quinin, cocain, anilin, adrenalin, salicylic acid.

We must bear in mind in ionic medication which substances penetrate under the anode and which under the cathode. All ions of bases, i. e., ions of metals, alkalies, alkaloids are electro-positive. All ions of acids, the halogens, chlorin, bromin, iodin are introduced by the negative — are electro-negative.

Again in ionic medication we must consider the depth of penetration and the effect of the combination of organic substances with the ions. Some ions, especially those of the heavy metals are probably precipitated under the form of phosphates by the albuminous liquids of the body although the amount of phosphoric acid in the blood-serum or lymph is very small. The other ions may be described as gradually losing their velocity when they have penetrated some way and as passing then gradually into the circulation by diffusion till eliminated.

The difference between hypodermic and ionic medication is that in the hypodermic method the medicines penetrate the interstices of the tissues and are rapidly carried away by the circulation, while in ionization the ions are introduced into all parts of the elements of the tissues, into the protoplasm of the cells that are traversed by the current. This makes the effect of the drug more durable as in the production of local anesthesia or local anemia. The effect of an ion of zinc, for instance persists as if the zinc were inclosed in the tissues. Lithia introduced electrically takes longer to be eliminated than if taken by the mouth.

The strength of the solutions used in ionic medication is from 1 to 2 per cent. In a 1 per cent. solution there are plenty of ions if the ion introduced is of the same metal as the metallic anode, i. e., the ion of zinc chlorid introduced by an electrode of zinc. The ions in this condition are continually renewed by those leaving the metal exactly in the proportion in which they penetrate the body. If a carbon electrode is used to introduce the zinc ion,

then the ions are not renewed and you must use a stronger solution—2 per cent. —and have a greater number of layers of absorbent material over your electrode as a reservoir of the ions and as an absorbent of the ions of hydrogen and hydroxyl, which from the positive and negative plates, are directed to the interior.

The destructive action of ions depends on their power of coagulating the albuminoids of the tissues and of dissolving the substances of the tissues. That is, ions present coagulating and histolytic actions. By using unalterable electrodes the tissues are destroyed at both poles with different effects. The positive pole produces a dry, hard, adherent eschar, the negative pole produces a soft, pliant, moist eschar. In this case the destructive positive ions are chlorin, carbonic, sulphuric and phosphoric acids of the body acid radicals. The ions discharge themselves and give rise to secondary reactions which first effect the decomposition of the water of the tissues with the formation of acid and elimination of oxygen—($2Cl+H_2O=2HCl+O$). The positive electrode surrounds itself with acid and equals an acid electrode, which coagulates the plasma and gives a hard, dry eschar.

The cations at the negative pole discharge and give rise to secondary reactions with the water of the tissues and we have hydrogen and alkalies — ($Na+OH_2=NaOH+H$). The negative electrode is thus surrounded by an alkali and gives rise to a soft, moist alkaline eschar.

The anion which penetrates toward the positive pole through the tissues is OH, which is substituted for the acid radical of the plasma about the positive pole. The result is that the salts of the organism are replaced by the corresponding alkalies and the destructive action results from this. The alkalies exercise a dissolvent action on the tissue substances.

When we use saline solutions as electrodes we introduce under the anode the cations of salt which are substituted for the metal of the salts in the organism. The heavy salts penetrate the plasma and coagulate the tissue substances. Zinc has the highest coagulating action.

Destruction by ions may be practiced by a mono- or bi-polar action. The monopolar method gives the same action in all parts. The electrode may be a flat plate or a needle. The bi-polar method gives a different action at each of the poles which are needles, and restricts the action to a certain region. This is used in delicate places as the eye, etc. Most of the destructive effect is about the electrode. The destructive effect is proportional to the intensity of the current. The same result may be obtained with a feeble intensity of current by increasing the time it is passed.

The conditions essential to success in ionic medication are: The affection should be a superficial one. The time allowed the current to pass should be sufficient to permit its penetration into all the diseased tissues. The ions and the dose should be carefully chosen to produce the desired effect.

If after the introduction of the ions the affected elements return to their former state the dose is toxic and non-destructive. It is destructive if the introduction results in the death and elimination of the anatomical elements.

The advantages of ionization are that in its use no anesthetic is required, it does not open the blood-vessels, it sterilizes the tissues on which it acts and produces an eschar which up to cicatrization protects the organism against infection exactly as the normal skin or mucous membrane.

These characteristics are all desirable in the treatment of superficial epitheliomas or any ulceration.

In the treatment of epitheliomas zinc is the ion of choice because of its powerful coagulating properties. The method is as follows: The zinc is used in a 1 per cent. solution of zinc chlorid, the active electrode should also be of zinc and of such size and shape as best meets the size of the diseased area. The active electrode is covered with about ten layers of gauze thoroughly moistened with the zinc chlorid solution, and it is attached to the positive pole of the direct current.

The negative electrode is a flat plate well covered and moistened and placed under the patient's hand. The electrodes in position, the positive held closely applied to the diseased area the current is gently turned on and increased up to 3-5-6-10 M.A., according to the size of the affected area and passed for about twelve minutes. If the current strength to be borne must be lessened the time of the treatment should be increased.

The surface after treatment will be covered with a white *eschar,* which completely protects it. There will be no hemorrhage. No dressing is required. The patient is instructed not to irritate the surface and to be careful in bathing the part. If the treatment has been sufficiently destructive one sitting is all that is needed, but a second one may be required to destroy a few of the cells of higher *resistance.* The patient should return in a couple of weeks to allow the decision with regard to further treatment to be made.

Ionization is easily applied. The necessary equipment is small and not costly and the cicatrizations produced by it are rapid and complete.

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Wachowski, John George, Hilliards, Mich., College of Medicine, Uni. of Ill., 1902	Illinois	7/31/12
Weed, Harry M., Bergland, Mich., Chicago Homeopathic Medical College, 1889	Wisconsin	7/31/12
Cunningham, Ersom Mills, Vandalia, Mich., Medical College of Indiana, 1892	Indiana	8/ 1/12
O'Meara, James John, Jackson, Mich., Northwestern Univ. Med. School, Illinois, 1911	Illinois	8/ 6/12
Boone, Cornelius E., New Holland, Mich., College of Medicine, Univ. of Ill., 1907	Illinois	8/10/12
Denney, Carlisle M., Grand Rapids, Mich., Chicago College of Med. and Surg., 1911	Illinois	8/12/12
Kunstler, Max, Detroit, Mich., Medical Dept., University of Maryland, 1907	Maryland	9/24/12
Lee, Ichabod W., Fulton, Mich., Chicago College of Medicine and Surgery, 1908	Illinois	8/24/12
Arnold, Frank W., Grand Rapids, Mich., Milwaukee Medical College, 1902	Wisconsin	8/27/12
Cleage. Albert B., Detroit, Mich., Indiana Medical College, 1910	Indiana	8/30/12
Veazey, Allen H., Hudson, Mich., Chicago College of Medicine and Surgery, 1909	Illinois	9/10/12
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McQuillan, James A., Jackson, Mich., St. Louis University School of Medicine, 1912	Missouri	9/14/12
Coon, Alfred R., DeWitt, Mich., Homeopathic Medical College, Univ. of Mich., 1912	Ohio	10/ 7/12
Harkness, John L., Detroit, Mich., Jefferson Medical College, Pa., 1901	Pennsylvania	10/11/12
Gilfillan, Margery J., Kalamazoo, Mich., Rush Medical College, 1908	Wisconsin	10/15/12
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Reid, Wells Co., Linden, Mich., Washington University Medical School, Mo., 1912	Missouri	10/11/12
Jeffery, Charles E., Forestville, Mich., Trinity Medical College, Ontario, 1895	Tennessee	10/11/12
Sloan, Edwin P., Bloomington, Ill., University Medical College, Mo., 1898	Illinois	10/11/12
Wright, Wm. K., Manistique, Mich., Missouri Medical College, Mo., 1887	Missouri	10/28/12
Arens, Edmund P., Detroit, Mich., St. Louis University School of Medicine, 1908	Illinois	11/ 4/12
Spawr, Clarence V., Benton Harbor, Mich., Chicago College of Med. and Surg., 1909	Illinois	11/11/12
Stevens, Charles E., Ironwood, Mich., College of P. & S., University of Illinois, 1910	Illinois	11/11/12
Tibbits, Newton, Grand Rapids, Mich., Dept. of Med. and Surg., Univ. of Mich., 1884	Wisconsin	11/11/12
Wile, Udo J., Ann Arbor, Mich., Medical Dept., Johns Hopkins, 1908	New York	11/11/12
Rutledge, Samuel H., Manistique, Mich., Queen's Medical, Kingston, Ontario	Iowa	10/11/12
Sullivan, Wm. E., Ann Arbor, Mich., Dept. of Med. and Surg., Univ. of Mich., 1912	Examination	10/30/12
Schermerhorn, L. J., Greenville, Mich., Dept. of Med. and Surg. Univ. of Mich., 1912	Examination	10/30/12
Crane, Harold LeRoy, Ann Arbor, Mich., Dept. of Med. and Sur., Univ. of Mich., 1912	Examination	10/30/12
Mussell, Arthur R., Clare, Mich., Bennett Medical College, Chicago, 1912	Examination	10/11/12
Masse, Jean B., Detroit, Mich., Medical Dept., Laval University, 1902	Examination	10/28/12
Desrosiers, Joseph L., Detroit, Mich., Baltimore Medical College, 1911	Examination	10/11/12
Douglas, Jean S., Detroit, Mich., University of Pittsburgh, Medical School, 1911	Examination	10/11/12
Penix, John H., Detroit, Mich., Harvard Medical School, 1911	Examination	10/11/12
Morton, John B., Detroit, Mich., Bellevue Hospital Medical College, 1897	Examination	10/11/12
Howard, Ralph B., Three Oaks, Mich., Rush Medical College, 1912	Examination	10/11/12
Mills, David A., Holland, Mich., Homeopathic College, University of Michigan, 1912	Examination	10/11/12
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DIAGNOSIS OF TUBERCULOSIS IN INFANCY AND CHILDHOOD*

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Recent investigations have shown tuberculosis to be much more prevalent among infants and young children than it was formerly supposed to be, especially in those of tuberculous parents.

Hutchinson states that one-third of all children dying in hospitals die from some form of tuberculosis, and that of all deaths due to tuberculosis, 30 per cent. are in children. Koplik states that in the first five years of childhood tuberculosis is found in fully 50 per cent. of autopsies.

The diagnosis of the disease in infancy and childhood is often extremely difficult. The physical signs under 10 years of age are not those of the typical apical lesion usually found in adults. Often the only signs are those of a persistent localized bronchitis, usually in the lower anterior part of the chest. The onset may be insidious and the progress slow and an early diagnosis in infants from an examination of the chest is often impossible.

During the first two years of life tuberculosis is comparatively rare. Of 382 autopsies, however, made by Holt, 160 were in the first year. Of these sixty-seven were under 6 months of age and ten under 3 months.

At this period the disease usually takes on an acute form, the most common being meningitis or general miliary tuberculosis, usually proving rapidly fatal. There is but little tendency to chronicity at this period of life.

For the production of active disease two things are necessary: 1, a suitable soil, and 2, a sufficient amount of infection. The science of eugenics has recently shown that tuberculosis follows the usual workings of the laws of heredity and variation in mankind. Eugenics has demonstrated that susceptibility and resistance to disease may be fixed and eliminated at will in plants and animals, and the work of Karl Pearson, Professor of Applied Mathematics in the Galton Eugenics Laboratory of the University of London, has yielded cogent proof that a large quota of tuberculosis is due to a hereditary predisposition or diathesis.

Congenital tuberculosis is probably a rare disease, some authorities stating that it never occurs. Warthin, however, has found tubercle bacilli in the livers of over fifty fetuses; so that the possibility of hereditary transmission of tubercle bacilli must be admitted. A large number of attempts have been made to produce a tuberculin reaction in newly-born infants, but thus far, I believe, without positive results, so that for all practical purposes it must be recognized that tuberculosis is not a congenital or hereditary disease.

In recent years it has been determined that infection usually takes place in infancy or childhood and that consumption as met with in adult life is probably in most cases the result of infection many years before which for one reason or another has resulted in renewed activity at the site of the old infection or as an ex-

* Read at the Forty-Seventh Annual Meeting of the Michigan State Medical Society, Muskegon, July 10-11, 1912.

tension from it. It is thought that cases of chronic pulmonary phthisis can develop only in an organism which has been infected many years previously. The adult type of disease is almost never found under the sixth year and very rarely under the tenth.

An exposure of a few hours is enough to infect a child. Three or four months later symptoms of disease may become manifest. It is not sufficiently well recognized by the profession that one or two hours or half a day with a consumptive may result in tuberculosis in an infant. One tubercle bacillus will kill a guinea-pig and it has been stated that fifty may infect a child.

If only a few bacilli enter the tissues at first, the cells of the child are stimulated, antibodies are produced and the bacilli destroyed. In this way the child's resistance or immunity to further infection is established. If the infection is renewed often enough the immunity may be overcome and active disease set up.

In adults it is usually impossible to trace the source of infection as symptoms of disease first appear so long after the period of infection, but in children and especially in infants it is frequently possible to trace infection directly from one person to another.

With the help of the recently perfected tuberculin tests, it has been proven that a very large percentage of children, especially in large cities, become infected with tuberculosis. Von Pirquet has shown that 50 per cent. of children from the 11th to the 14th year of age react to the cutaneous test. A considerable percentage of latent cases, however, do not react to the von Pirquet test and the hypodermic administration of tuberculin has been found to indicate a much higher percentage of infections; namely, 1 or 2 per cent. in the first year of life, 10 to 12 per cent. in the second year, 25 to 30 per cent. in the third and fourth years, 50 per cent. in the fifth year, 75 per cent. in the seventh to tenth years and 95 per cent. from the eleventh to the fourteenth years.

These results coincide closely with the work of Gohn, who in a large number of post-mortems on children in Vienna extending over a period of seven years, found that 95 per cent. of children from the 11th to the 14th years, who died from some other disease than tuberculosis, showed tuberculous infection.

While von Pirquet found that only 50 per cent. of inactive or healed lesions reacted to the cutaneous test he found that 90 per cent. of active cases in children reacted to it. He therefore is of the opinion that a frankly positive reaction indicates an active or recent infection. He also believes that a strong tuberculin reaction in a child is a very good sign, showing a high degree of immunity or resistance. Cachectic children sometimes do not react at all as is also often the case in advanced cases of consumption in adults.

In anemic children whose circulation is poor the tuberculin is not well absorbed. Moreover, all people are not equally susceptible and hence do not react as theoretically should be the case. It should therefore be remembered that failure to react to the cutaneous test excludes infection in only 50 per cent. of cases. The use of the hypodermic test is necessary for a positive conclusion.

Reaction to a tuberculin test of any kind does not necessarily show active disease. It simply shows infection. Tuberculous infection therefore is a biological process, a reaction of the human organism to the tubercle bacillus—not a disease. In 75 per cent. of the cases it is a completely harmless process or condition in children. The reacting ones are not necessarily ill. The child may be absolutely sound or

suffering from an entirely different disease. If the tests, however, properly conducted are negative, one may conclude that the child has never been infected with tubercle bacilli unless some of the following conditions are present to explain the absence of reaction.

A number of diseases are known to considerably diminish tuberculin susceptibility, such as

1. Malignant tuberculosis.

2. Advanced cases of meningitis.

3. Advanced pulmonary tuberculosis, in which the antibodies are rapidly used up or are not produced in sufficient quantities.

4. Other diseases of a non-tuberculous nature such as measles. It is well known that in early life tuberculosis may sometimes be excited from a latent condition into an active form by measles. This is especially the case in children under 4 or 5 years of age, so that measles should be avoided in the first few years of life by any child who has ever had a tuberculous infection.

5. Pneumonia, which often lowers tuberculin susceptibility, although not to such an extent as measles.

6. Typhoid fever or chicken-pox. In fact any acute disease may for a time reduce or entirely eliminate susceptibility to the cutaneous test of von Pirquet. In many of these cases, however, the use of 1/10 milligram of tuberculin hypodermically will be followed by reaction.

As the powers of resistance are much less in the early period of life than later, the prognosis of infection varies at different ages. In the first half of the first year, 80 per cent. of infected babies die; in the second half, 60 per cent. Hamburger states that all who are infected during the first four months of life die. In the second year the mortality-rate is about 40 per cent., being much less than von Pirquet first thought it to be. After the fourth year, if recognized and intelligently treated, infection may be said to be as a rule without any danger whatever. From then on it may be said that the prognosis for tuberculosis is good, but bad for consumption.

An infected child may take several courses:

1. If under 2 years of age he may develop acute meningitis or pleurisy or some other acute form of tuberculosis. The disease may come on as suddenly as an acute lobar pneumonia.

For instance, a baby 6 months old who had been exposed to tuberculosis by its mother had been ill but five days when I first saw it. Previous to this its health seemed to have been perfect. There was dulness over the lower half to the right chest, bronchial breathing and diminished vocal resonance. The other side was normal. The cutaneous test was positive. The diagnosis was tuberculous pleurisy with effusion. In six weeks the child was well.

2. The child may develop a phthisis habitus, a condition of low vitality, of retarded development, without active signs of tuberculosis and become a victim of some other disease before reaching adult life.

3. He may remain in good health until many years after, when for one reason or another his general health becomes impaired, his resistance diminished and his immunity lessened and the infection which has been lying dormant in his body develops and acute or chronic tuberculosis of the adult type is the result.

The avenue of entrance of tubercle bacilli into the body has been a subject of dispute for a good many years, many authorities believing that infection usually enters through the alimentary canal, while others believe infection enters through the respiratory passages in the vast majority of cases. Gohn seems to have established the fact that the latter view

is the correct one and after eight years of work in the pathological institute at Vienna seems to have proved that the initial lesion of tuberculosis is always in the lung near the base or middle part. It is situated in the lower lobes more often than in the upper. This primary focus of infection is so small that it is easily overlooked and one often has to feel the lung tissue between the fingers, exploring considerable areas little by little until finally a spot is found sometimes smaller than a pea which on opening will be found to be in a state of caseation or softening. Sometimes it may be more or less calcified. Occasionally it is simply a scar. It may always be found if one searches long enough and always appears to be an older focus of disease than can be found elsewhere in the lungs or lymph-nodes. It is never younger. While in an advanced case in an adult it is not always possible to say which of the many foci of disease found in the chest is the primary one, on autopsies in children, the primary focus may always be found if persistently searched for. The older the child the more difficult it is to distinguish it.

This work of Gohn is of tremendous practical importance in that it indicates that in children the respiratory passages are the usual avenues of entrance of tuberculous infection into the body and I was pleased to hear Holt say a couple of weeks ago that in nearly all the tuberculosis seen in infancy the bacillus found has been of the human type, not the bovine type. He stated that the first cause of tuberculosis was not milk from infected cows, but contact with human tuberculosis.

This location by Gohn and Escherich of the primary lesion in the lung is quite contrary to the usual view held by most American authorities who are of the opinion that tubercle bacilli usually enter the body through the alimentary canal, penetrate the mucous membrane without leaving any local lesion at the point of entrance and then proceed to the bronchial glands from whence they are disseminated to the lungs and other parts of the body.

The lungs and bronchial glands seem to have but little power to destroy tubercle bacilli. You can infect all the organs and glands of the bodies of animals and find on autopsy that they have produced disease only in the respiratory organs.

Neumann has found tubercle bacilli in the general circulation of many people who have only a local lesion in the lung. It is probable that in some cases of pleurisy with effusion, tubercle bacilli may reach the pleural cavity from the blood-stream. Even in these cases, however, autopsies indicate that the usual origin is from a primary focus of disease in the lung near the pleural surface which breaks through into the pleural cavity, thereby infecting it.

In the production of a case of consumption or the third stage of tuberculosis in children, therefore we have

1. A primary infection at the base or middle part of the lung with consecutive involvement of the lymph glands at the bifurcation of the trachea, of the glands at the hilus which extend along the bronchi to the lung, or of the glands which surround the trachea itself, the result of the entrance of tubercle bacilli with the inspired air.

2. Foci of infection in various parts of the lungs or in other parts of the body such as the brain or peritoneum.

3. A breaking down in later years of one or more infected areas in the lungs giving rise to consumption of the adult type. As the amount of blood and air is least at the apex of the lung the process is more active in this locality, while the foci of disease in other parts of the body remain healed forever.

Immunity against reinfection in tuberculosis is due to the presence of anti-bodies upon which von Pirquet's test depends. The cutaneous reaction is an indication of the presence of this immunity. Only a previously infected person will respond to the introduction of tuberculin into the body. As much as 1 gram of pure Koch's old tuberculin has been injected hypodermatically into the body of an infant without any reaction whatever.

Anti-bodies are present only in infected individuals. They are probably the opsonins of Wright. The contest between the leukocytes and the bacilli produce the symptoms of the disease. If the child has never been infected and has no tuberculin susceptibility and therefore no anti-bodies, no reaction will take place. You cannot in such a case originate susceptibility or increase what does not already exist.

Tuberculosis does not begin to develop in an infected individual until the anti-bodies fall below normal. It is only when the susceptibility to tuberculin is diminished that a child becomes predisposed to active disease.

In testing for tuberculosis in children first give a von Pirquet test. If negative, two or three days later give 1/10 mg. of Koch's Old Tuberculin hypodermically. If this fails to react in forty-eight hours, inject 1 mg. If this is negative, tuberculosis can be excluded. Or, if you do not wish to use the hypodermic test, give two to four cutaneous tests at intervals of two days. If these are negative you may be practically sure the case is not one of tuberculosis. If you get a negative result after a cutaneous test it is necessary to repeat a second Pirquet or use the hypodermic test within two or three days.

To recapitulate, von Pirquet's test is very valuable in the first three of four years of life, as tuberculosis is less rare then than later and likely to be active. A positive Pirquet speaks for an active lesion in a young child and a negative Pirquet in a sound-looking child does not prove that he has never been infected. It only suggests that he has no *active* lesion. He might react to 1/10 mg. hypodermically.

The diagnosis of tuberculosis in children is based on both general and local symptoms. Among the most important are: Malnutrition, pulmonary symptoms and physical signs, enlarged cervical lymph-glands, hypertrophied tonsils and adenoids, symptoms due to the absorption of the toxins of the tubercle bacillus such as fever, emaciation, poor appetite, anemia, etc.

In infants some cases present no physical signs whatever, others may have a slight cough and generalized râles over all parts of the lungs, while others have signs of bronchopneumonia or lobar pneumonia.

Very few cases give characteristic signs such as consolidation. Von Pirquet states that tuberculosis in infants is often mistakenly looked on as marasmus due to gastro-intestinal disease. Without showing any signs on the outside of the body, the child gradually loses in weight and dies after a few months. On post-mortem you will find cascation of nearly all the glands of the lung, of the peritoneum and of the mesentery. Some cases may present very positive signs of disease on percussion and auscultation whereas a cough may be entirely lacking. A common form of the disease, especially in the earlier years of childhood, is miliary tuberculosis which is characterized by a great number of very small tubercles spread throughout almost all the organs of the body. These cases frequently terminate in tuberculous meningitis.

Local symptoms of tuberculosis are due to the local foci of disease produced by

the tubercle bacillus. There are no symptoms of the initial lesion in which the infection is confined to a small focus at the base or middle part of one lung. A recognition of the disease at this stage can be made only with the help of tuberculin. When the disease has extended to the bronchial gland a diagnosis may often be made. The diagnosis of enlargement of these glands has recently attracted considerable attention. This is not surprising when we consider the importance of a diagnosis of tuberculosis at this period, for months or even years may elapse before the lung or other parts of the body become infected. Enlarged glands often produce cough and sometimes stenosis. This is more common in the first year of life than later. It is rarer still in the third year. The stenosis is indicated by expiratory dyspnea and is often thought to be asthmatic in origin. The cough is sometimes of a metallic, high-pitched character. Shick has called attention to the fact that the expiratory stridor differs from that of asthma in that it is more often constant than paroxysmal.

I recently saw a case of a fat well-nourished baby 4 months old. He was breathing with considerable difficulty and a diagnosis of laryngeal croup had been made. The cough was brassy or metallic, suggesting pertussis. Expiration was more difficult than inspiration. This is explained by the fact that during inspiration the thoracic muscles expand the chest and the air passages are forcibly opened up, thereby facilitating the entrance of air into the bronchial tubes, while on expiration the bronchi are more or less compressed by the enlarged glands rendering expiration more difficult. The baby also had several red or brownish papules somewhat elevated and slightly umbilicated, characterisitics of a cutaneous tuberculide.

Stoll states that the character of the voice, especially the whispering voice, affords the most reliable evidence on which to base a diagnosis of enlarged tracheobronchial glands. The words three thirty-three being repeated slowly, when glandular enlargement is present bronchophony is quite distinct. The final "e" of the last word "three" is heard for an appreciable time after the voice stops. This is normally present over the trachea. When the glands are enlarged it may be heard over the dorsal vertebra sometimes as low as the eighth. After the first year of life these enlarged glands are less frequently a cause of stenosis.

In the hands of an expert of large experience radiography is a valuable aid in the diagnosis of these cases.

The diagnosis of secondary lesions is usually less difficult. The tuberculides of the skin of which more than thirty varieties are mentioned by the dermatologists seem to be more prevalent in Europe than in this country. They indicate an active process and may be easily overlooked. The most common are lichen scrofulosa, chronic varicella, phlyctenular conjunctivitis and keratitis. Erythema nodosum seems also to be tuberculous. One rarely finds so large a von Pirquet reaction in anything else as in this. They all react whereas in children between 2 and 5 years of age only 50 per cent. react.

Other common lesions of the secondary stage are those of the bones of the fingers and the metacarpal bones of the foot. Coxitis or hip-joint disease is tuberculous in 90 per cent. of the cases. Spondylitis or Pott's disease which is more frequent than coxitis is always secondary to tuberculosis of the lungs and hilus glands. Three-fourths of the kyphoses in the lumbar region in children are due to rickets, but a kyphosis from rickets in the dorsal spine is very rare. A bulging here means spondylitis which is regularly secondary to thoracic disease. One must remember, however, that a child who has had rickets may also have tuberculosis of the dorsal spine.

Meningitis so often takes place soon after infection that the child looks well when acute symptoms begin and the case may look like one of primary tuberculous meningitis. Serous pleurisy is practically always due to tuberculosis and usually gives a good prognosis. When a von Pirquet is positive in a case of pleurisy with effusion it indicates a serous rather than a purulent exudate. In a large majority of cases the latter is due to the pneumococcus and is secondary to pneumonia.

Lobar pneumonia in children almost never ends in tuberculosis although resolution may be delayed two or three months.

Tuberculous peritonitis which as a rule occurs in cachectic cases is rarely primary. It often follows measles because after this disease immunity is diminished and the bacilli which are coughed into the mouth from the lungs are swallowed. The tuberculin tests are often negative in cases of pleurisy and peritonitis during the stage of absorption, but earlier in these cases a tuberculin test may give a positive reaction, so that if the test is not used until late in the disease you must not conclude that it is not one of tuberculosis.

Tuberculosis has been aptly compared to syphilis in several ways. In the first place it has an initial lesion which is manifested by a small nodule in the lung followed by tuberculous foci in the regional lymph-nodes or bronchial glands. From these glands the disease may extend to the brain, bones, pleura, peritoneum, etc., constituting the second stage of the disease.

The third stage consists in the development of pulmonary tuberculosis or consumption of the adult type which is rarely met with in children under 10 years of age.

Tuberculosis in children, like syphilis, is liable to frequent relapses during one of which the child may die from some secondary complication such as meningitis. Or he may recover to again relapse, or may remain permanently well.

Tuberculosis usually confers immunity against reinfection as does syphilis. Post-mortems show that a child who lives in a consumptive family and who dies at the age of, say 2 years from diphtheria, may have a tuberculous focus in the lung but no other evidence of local lesions, although we know that he has been exposed to infection many hundreds of times.

Another point of resemblance between the two diseases is that you do not find lesions of the secondary stage which have not been preceded by those of the first stage, nor lesions of the third stage without those of the first and second having gone before.

Hamburger compares the two diseases by saying that as no one can develop symptoms of tabes or progressive paralysis without having been infected with syphilis years before, so no one can develop consumption who has not in infancy or childhood been infected with tuberculosis. Bacilli enter the body early in life and do not develop until the organs cease to keep its anti-bodies up to the proper level.

When we compare the local primary lesion of tuberculosis with that of syphilis, the manifold secondary lesions of the two diseases, of greater or less severity and extending over a period of many years, and finally their tertiary stages, consumption of the lungs in one and locomotor ataxia, softening of the brain and other parasyphilitic diseases in the other, the resemblance between the two diseases is certainly very striking.

It seems to me also that tuberculosis bears somewhat the same relation to the tuberculin reaction that syphilis does to the Wassermann reaction. The almost constant presence of the Wassermann reac-

tion in every case of syphilis after the first four or five weeks following infection, and the possibility of patients without symptoms giving a positive reaction and later developing typical parasyphilitic lesions, has led such men as Neisser and Finger to state that a positive Wassermann calls for anti-syphilitic treatment until the positive reaction permanently disappears.

Similarly, the finding of a positive tuberculin reaction indicates previous tuberculous infection; but the comparison between the two is faulty in that no amount of treatment of a person infected with tuberculosis will cause the tuberculin reaction to disappear. But, as we are justified in regarding a positive Wassermann reaction as an indication of syphilis and treating it as such, we should also maintain somewhat the same attitude toward a positive tuberculin reaction *in a child*, recognizing the fact that 25 per cent. of these infected children later develop some form of active tuberculosis and that 10 to 15 per cent. of them die from some tuberculous lesion.

It becomes evident, therefore, that the proper use of tuberculin is of great importance in the diagnosis of tuberculosis *in children*. In adults, however, it is of very little use for this purpose. Hardly a week passes wherein I do not see a case in which a great deal of reliance has been placed on tuberculin for diagnosis among adults. If the reaction is positive it is supposed to indicate active disease. If negative, tuberculosis is excluded.

No greater mistake could possibly be made. In the first three or four years of life, however, it is of inestimable value and I believe a cutaneous test should be given every six months to every child who has been in any way exposed to open cases of consumption. In this way infection would be discovered soon after its occurrence, at a time when the institution of proper measures would prevent the development of the secondary stage of the disease in many cases. Some one has said that the proper time to treat consumption is before the disease is acquired.

A reacting child should be treated as a case of incipient tuberculosis and be placed under the best possible circumstances for maintaining good health and preventing the development of active disease.

It is strange that so many physicians do not yet realize that we have in tuberculin the only available means for diagnosing tuberculous infection in children who present evidence of impaired health, the etiology of which cannot be otherwise determined after careful examination, at a time when treatment would be most productive of benefit.

Somewhat the same idea should govern us in our treatment of adults. I believe that in all doubtful cases patients should be treated as if we were sure of our diagnosis. I would rather treat a hundred cases for tuberculosis until the lapse of time had proven the error of my diagnosis than to overlook the true condition and permit one patient to reach an advanced stage before a correct diagnosis is made.

I do not believe that practitioners who see comparatively little of tuberculosis realize the number of cases which are undiagnosed until they reach the office of the specialist. Many cases pass through the hands of several physicians and reach an advanced stage before being recognized. These mistakes are not due to ignorance as often as to carelessness in examining patients. Moreover, many men seem to lack courage to say to a patient "You have consumption and now is the time to begin treatment if you hope to recover." There are also physicians who for one reason or another refrain from stating their

diagnosis to a patient. This seems to me to be almost criminal. The cases must be very rare indeed in which a patient can be subjected to proper treatment for a sufficiently long time to make a good recovery without knowing for what he is being treated and why such prolonged treatment is necessary. If the case is an advanced one, without such knowledge proper care of the sputum is not apt to be taken and the entire household is exposed to infection.

I wish to close my paper, therefore, with a plea for the more thorough and systematic examination of our patients, both children and adults, in order that these cases may be recognized as early as possible and be given the benefit of proper treatment at a time when recovery is possible.

87 Monroe Avenue.

RECIPROCITY

The Michigan State Board of Registration in Medicine has Reciprocal Agreements with the Following States

Under Qual. I.	Under Qual. I and II.
District of Columbia	Georgia
Georgia	Indiana
Illinois	Iowa
Indiana	Kansas
Iowa	Kentucky
Kansas	Maine
Kentucky	Maryland
Maine	Minnesota
Maryland	Missouri
Minnesota	Nebraska
Missouri	Ohio
Nebraska	South Carolina
Nevada	Vermont
New Hampshire	West Virginia
New Jersey	Wisconsin
New York	Utah
North Dakota	Texas
Ohio	New Hampshire
South Carolina	Arkansas
Vermont	Tennessee
Virginia	Louisiana
West Virginia	Oklahoma—22
Wisconsin	
Wyoming	
Utah	
Texas	
Arkansas	
Louisiana	
Tennessee	
Oklahoma—30	

COMMON DRINKING CUPS

Amendment to Interstate Quarantine Regulations

To medical officers of the Public Health Service, State and local authorities, and others concerned:

On account of the frequent spread of disease by the use of the common drinking cups, the following amendment is hereby made to the Interstate Quarantine Regulations promulgated by this department Sept. 27, 1894, and amended Aug. 17, 1905, June 24, 1909, and May 15, 1912, said amendment and regulations being in accordance with Section 3, act of Congress approved Feb. 15, 1893.

Article 3, General Regulations, is hereby amended by the addition of the following paragraph:

Paragraph 13. Common carriers shall not provide in cars, vehicles, vessels, or conveyances operated in interstate traffic, or in depots, waiting rooms, or other places used by passengers traveling from one State or Territory or the District of Columbia to another State or Territory or the District of Columbia, any drinking cup, glass, or vessel for common use: Provided, That this regulation shall not be held to preclude the use of drinking cups, glasses, or vessels which are thoroughly cleansed by washing in boiling water after use by each individual, nor shall it be held to preclude the use of sanitary devices for individual use only.

FRANKLIN MACVEAGH,
Oct. 30, 1912. Secretary of the Treasury.

THE PHYSICIAN AS A BUSINESS MAN

For attending a case of pneumonia, typhoid, appendicitis, child-birth, or plain imagination, a physician is entitled to reasonable compensation, depending, first, on his personal valuation of his own services, secondly, on the time devoted to the effort, and finally, on the prevailing standard of fees in the community. The patient's prominence or wealth has little or nothing to do with the amount of the fee justly charged; it should not affect the doctor's fee any more than it should affect the price of an automobile or a pair of shoes. A doctor must be either a business man or a beggar.—*Delaware State Med. Journal.*

SPECIAL ARTICLE

HERETOFORE UNPUBLISHED RECORDS OF THE MEDICAL SOCIETY OF THE TERRITORY OF MICHIGAN

Edited by
ALPHEUS F. JENNINGS, A.B., M.D.
Detroit

(Continued from page 38, January, 1913)

Chapter III.—The Times and Conditions of Country

Before going into the minutes of the society, let us see the Territory in those days.

The war of 1812 was a turning point in the development of Michigan. Before the war the Territory was one of the western outposts. It was inaccessible for there were no roads through the forests and travel by water was unreliable; the Indians backed by the British were hostile; the political future was dubious. These conditions were reversed when the war was over. In the same month that the last local battle was fought, Oct. 1813, Lewis Cass was made Governor. He was then about 30, vigorous, brave and sincere in his belief that American institutions could make this new land as useful as the eastern country had become. It is to his influence that the present day Michigan owes its foundation. For some years the community was being built up, newspapers were published and better means for communication with the outside world were developed. The greatest need was a larger population and this until 1819 was quite backward. However, fully a year after the steamboat "Walk-In-The-Water," made the first trip between Detroit and Buffalo in 1818, the settlers began to arrive in good numbers each week. This gave a new and lasting impetus to affairs. On its wave the medical society was organized.

In 1819, except for a few traders and farmers at Mackinac and along the St. Mary's River, the only white people in the Territory were centered about Detroit. This district was a strip of land on the shores of the lakes and rivers, extending from the River Resin to present-day St. Clair. It was about five miles in width except near the Clinton River where it was much wider. Each center of population was represented by a county and in that year there had been organized Wayne, Monroe, Macomb, Oakland and Mackinac. There was but one road in the Territory, extending the length of the settlements about Detroit. One William Darby described the Detroit River in 1818: "Both shores exhibit a line of farm houses interspersed with orchards and gardens and present a country in a high state of culture. Windmills and vessels afford a fine picture of agricultural prosperity." This was, however, only a small part of the Territory. Beyond, it was dangerous to settle because of marauding Indians. In 1817 there were about 5,000 people in the Territory, in 1820 the census showed 8,591.

Detroit was the center of trade and government. It 1820 the population was 1,415. The town had been enclosed by a stockade in 1807. On the east this was at the present Randolph street, on the west at present Cass avenue. It extended inland from the river as far as Fort Shelby which stood on the land at present the intersection of Fort and Shelby streets. These were probably the limits of the town for many years although more and more lived just outside. In 1823 Grand Circus Park, then the estate of Judge Woodward was considered "remote and inaccessible, being far out in the country and in the woods;" our Public Library Park shared no better repute. As late as 1830 the map made by John Farmer showed the same

east and west boundaries, but extended to Adams avenue. The legal city limits extended beyond the boundaries. Along the river were four docks which with the ships gave the appearance of a seaport. The streets were mudholes and there were few walks. The houses were low with long sloping roofs and one chimney in the middle.

The inhabitants of this region were contented in a plenty of provisions, clothes, and commodities of life such as the period afforded. Dr. Chapin advertised in the Detroit Gazette that besides drugs he sold paints, oils, drygoods, dry stuffs, window glass, whiskey, old wines, soaps, shoe leather and garden seeds. These came from New York and were reasonable in price. Every person had an occupation of some sort, for there was a law then that drunkards and vagrants could be sold into the service of the highest bidder. Sports in season were indulged in; the favorite pastimes were horse racing and bowling in the public streets. This was dangerous for pedestrians and caused many fines to be paid in the court. No cause for merriment or joking was neglected and all classes were convivial and hospitable. Yet bitter personal enmity was easily aroused and often led to serious situations. The French "habitats" owned most of the farms. They were shiftless and gave no thought beyond their daily needs and pleasures. W. C. Hoyt says they were polite "for drunk or sober they would turn out and give one-half the walk to a stranger—an Indian or a Scotchman would crowd him off into the road." The Indians were beggars or pillagers for they had acquired the vices of the whites, but no self control. The merchants, traders, professional men, and governors were of an excellent type. Many had been prominent at Washington and came out because of politieal positions, others had made their mark in the east, others came from wealthy families having had the best of education. They were all brave, strong and able. Their manner of living was quiet but in best fashion and they passed the evenings in literature, drama, or discussions.

Such were the men and the manners about the doctors in that time.

CHAPTER IV.—MEDICAL ORGANIZATION

The first gathering of the doctors took place about two months after the society had been authorized by law; the record of it follows:

At a meeting of the Physicians and Surgeons of the Territory of Michigan, held at the house of Benj. Woodworth on the 10th day of August, 1819, agreeably to Public notice previously given, for the purpose of organizing a Territorial Medical Society, it was unanimously resolved:

That it is expedient at this time to organize a medical society to be known and distinguished by the name and style of the Medical Society of the Territory of Michigan; after which the following gentlemen were elected by ballot to the several offices affixed to their respective names, vis.:

Dr. William Brown, President.
Dr. Stephen C Henry Vice-President.
Dr. John L. Whiting, Secretary.
Dr. Randall S. Rice, Treasurer.

Resolved; That the first annual meeting of this society be holden on the second Tuesday of January next at 10 o'clock in the forenoon, at the house of Benj. Woodworth, in the city of Detroit.

Resolved, That Doctors Henry and Whiting be a committee to prepare and report a code of rules and By-Laws for the government of this Society at its first annual meeting.

Resolved, That the President of this Society be a committee to wait on the Legislative Authority of this Territory and request that so much of the 9th section of the act entitled "An act to incorporate medical societies," etc., as contains these words, "provided the person so practicing without a license who shall not receive any fee or reward for the same shall be exempt from the penalty of this act" be repealed; and also that the words "five thousand dollars in the 10th section be struck out and the words, "*Twenty-five thousand dollars*" be inserted in their stead.

Dr. Ebenezer Herd applied to be admitted a member of this Society.

And the Society adjourned.

Attest: JOHN L. WHITING, Secretary.

At a meeting of the Medical Society of the Territory of Michigan pursuant to adjournment at the house of Benjamin Woodworth on Tuesday, Jan. 11, 1820, the president called the meeting to order. The minutes of the first meeting were read.

The committee to whom was referred the duty of waiting on the Legislative Board and requesting an alteration of certain words in the 9th and 10th sections of the Act entitled "An act to incorporate medical societies, etc." reported that the Governor and Judges think it

inexpedient at present to make the alterations suggested. The report was accepted. The committee to whom was referred the duty of preparing a code of By-Laws for the government of this Society presented a draft of such for consideration, which were read, discussed and amended after which, they were accepted and ordered to be recorded.

On motion of the Secretary, *Resolved*, That the article of the By-Laws which requires that the application of persons for admission as members of this Society lie over from one stated meeting to the next, be dispensed with in the case of Dr. E. Herd, whereupon he was unanimously admitted by ballot.

The Society then proceeded to the election of Censors, when on counting the ballots it appeared that the following gentlemen were elected, to-wit:

Dr. E. Herd.

Dr. S. C. Henry.

Dr. R. S. Rice.

On motion of Dr. Rice, *Resolved*, That Doctor William Thompson be admitted as a member of this Society at the next regular meeting.

And the Society adjourned.

Attest: J. L. Whiting, Secretary.

At a semi-annual meeting of the Medical Society of the Territory of Michigan held pursuant to adjournment at the house of B. Woodworth in the City of Detroit on Tuesday, the 13th day of June, 1820, were present: Doctor William Brown, president; Dr. Stephen C. Henry, vice-president; Dr. J. L. Whiting, secretary; Dr. Randall S. Rice, treasurer; and Dr. Ebenezer Herd.

The president called the meeting to order.

Dr. William Thompson was balloted for and admitted a member of this Society, on paying the same tax as has been paid by the original members of the Society.

Dr. Harry Conant applied for admission as a member of this Society.

On motion of Dr. Rice, *Resolved*, That so much of that article of the By-Laws, which requires the application of persons for admission as members of this Society to lie over from one stated meeting to the next, be dispensed with in the case of Dr. Conant.

He was then balloted for and unanimously admitted.

Mr. Cyril Nichols presented himself for examination for license to practice Physic and Surgery, and after a careful and impartial examination by the censors, he was declared to be entitled to such license and delivered a dissertation.

The Society then adjourned for dinner.

After dinner the president called the Society to order.

Dr. John B. Chamberlain applied to be admitted a member.

On motion, *Resolved*, That the consideration of the application of Dr. Chamberlain be postponed until the next regular meeting of the Society.

Resolved, That a committee of three members be appointed to report at the next annual meeting of the Society, a revision and amendments of the By-Laws: And the president appointed Dr. Whiting, Dr. Thompson, and Dr. Herd as this committee.

On motion of Dr. Thompson, *Resolved*, That the secretary be directed to have inserted in the Detroit *Gazette* the names of the Physicians within this Territory who are by law authorized to practice Physic and Surgery and members of the Medical Society of the same.

And the Society adjourned.

Attest: J. L. Whiting, Secretary.

On January 9, 1821, there were present Drs. Brown, Henry and Howard, "and this number not being a quorum, no business was transacted."

At a semi-annual meeting held pursuant to public notice, June 12, 1821, at the house of Henry O. Bronson in Detroit, there were present Drs. Brown, Whiting, Rice, Thompson, Herd, and Conant.

The president took the chair and called the meeting to order.

On motion of Dr. Thompson, *Resolved*, That so much of the 15th section of the By-Laws of this Society as requires the application of persons for admission to membership, to lie over from one stated meeting to the next, be, and the same is, hereby repealed.

On motion of Dr. Whiting, Dr. Cyril was unanimously admitted a member of this Society.

On motion of Dr. Herd, Dr. Marshall Chapin was also unanimously admitted.

The committee appointed at the meeting in June last to present a revision of the By-Laws, were not prepared to make a report. The Society then resolved itself into a committee of

the whole and made certain alterations and amendments subject to a revision at their annual meeting in January next.

Dr. Brown presented a seal which he has procured for the use of this Society, which was unanimously accepted, whereupon *Resolved*, That the seal with the following device, to wit: "A serpent entwined around a tree with two doves, whose beaks are directed to the head of the serpent and with the inscription, Michigan Medical Society in Roman Capitals" presented by Dr. William Brown, the first president of this Society, be adopted as their common seal, and that the thanks of the Society be tendered to the president for the same.

Resolved, That it is expedient at this time to appoint an attorney for this Society, whose duty it shall be to prosecute all infractions of the statute made, adopted and provided for regulating the practice of physic and surgery within this Territory.

Resolved, That the president and secretary be authorized to perform any act or acts necessary to carry the foregoing resolutions respecting the appointment of an attorney into effect.

Resolved, That Andre G. Whitney, Esquire, be, and he is hereby appointed said attorney.

Resolved, That the president and secretary be authorized to employ any attorney or attorneys they may deem proper, to assist A. G. Whitney, Esq., in prosecuting to effect any suit or suits which may be commanded by order of this Society.

And the Society adjourned.

Attest: J. L. WHITING, Secretary.

At an annual meeting of the Medical Society of Michigan held this day at the house of Henry O. Bronson, were present, Drs. Henry, Whiting, Herd, and Chapin

The president being absent the vice-president took the chair and called the society to order, and the minutes of the last meeting were read and accepted.

This being the anniversary of elections, the Society proceeded agreeably to their By-Laws to the election of officers for the ensuing year; when the following persons were duly elected to the offices set opposite their respective names, to wit:

Dr. William Brown, president.
Dr. Stephen C. Henry, vice-president.
Dr. John L. Whiting, secretary.
Dr. Randall S. Rice, treasurer.
Dr. William Thompson, censor.
Dr. John L. Whiting, censor.
Dr. S. C. Henry, censor.

The amendments to the By-Laws proposed at the last meeting were adopted, and confirmed. The 29th article of the By-Laws reading: "A patient calling for counsel shall not be regarded by any member of this society unless the attending physicians shall request his attendance," was repealed.

Resolved, "That the By-Laws be transcribed previous to the next meeting, and that the alterations, amendments, and additions now adopted and confirmed be incorporated with them.

And the Society adjourned.

Attest: J. L. WHITING, Secretary.

At a semi-annual meeting held this day, June 11, 1822, Detroit, were present, Drs. Brown, Henry, Whiting, Chapin and Herd. Absent, Drs. Rice, Conant, Thompson and Nichols.

The president took the chair and called the Society to order. The roll was called by the secretary and the minutes of the last meeting were read and approved. Dr. Amasa Hemenger, a licenciate of the Medical Society of the County of Otsego, New York, was proposed as a member of this Society, and after being balloted for, was unanimously admitted, on compliance with the provisions of the By-Laws.

And the Society adjourned.

Attest: J. L. WHITING, Secretary.

On Jan. 14, 1823, there were present, Drs. Henry, Whiting, and Chapin. This number not being a quorum, the Society adjourned to the fourth day of the next February.

At an adjourned meeting, held this day, were present, Drs. Brown, Henry, Whiting, Herd.

The president took the chair and called the Society to order. The minutes of the semi-annual meeting in June last were read and approved.

The election of officers for the ensuing year was then held and the following persons were declared to be duly elected to the several offices set opposite their names respectively. Vis.:

Dr. William Brown, president.
Dr. Stephen C. Henry, vice-president.
Dr. John L. Whiting, secretary.

Dr. Randall S. Rice, treasurer.
Dr. William Thompson, censor.
Dr. Stephen C. Henry, censor.
Dr. John L. Whiting, censor.

The treasurer's report for the year ending January, 1823, was received, read and accepted.

A fine of one dollar which was imposed upon Dr. Henry for absence from the meeting in June, 1821, was remitted.

Dr. Abraham Edwards was proposed by Dr. Henry as a member of this society. He was then balloted for and unanimously admitted.

And the Society adjourned.

Attest: J. L. Whiting, Secretary.

At a semi-annual meeting of the Medical Society of the Territory of Michigan held this day, June 10, 1823, Detroit, at the house of Benjamin Woodworth, were present, Drs. Brown, Whiting, Herd, Hemenger, Edwards.

The president took the chair, the roll was called, the minutes of the last meeting were read and confirmed.

Resolved, That a committee of three members be appointed by this Society to be called a Committee of Correspondence, whose duty it shall be to open a correspondence with such medical Society or Practitioners of medicine as they may think proper, upon subjects interesting to the profession: And Drs. Edwards, Whiting and Henry were appointed said committee.

Resolved, That the secretary be authorized to subscribe to Chapman's Medical Magazine on behalf of this Society, commencing with the year 1823.

A fine of one dollar was imposed on all absentees.

And the Society adjourned.

Attest: J. L. Whiting, Secretary.

At an annual meeting held this day, Jan. 13, 1824, Detroit, were present, Drs. Brown, Henry, Whiting, and Herd.

The president took the chair and called the Society to order. The roll was called when it appeared that the following members were absent, to wit: Drs. Thompson, Rice, Conant, Chapin, Nichols, Hemenger and Edwards, who were all, except Dr. Nichols, excused from fines, on account of the state of the weather and roads and absence from the Territory.

Dr. Henry states that he was prevented from attending the meeting in June last by professional business and his fine was therefore remitted.

The Society then proceeded to the election of officers for the ensuing year, when it was found that the following gentlemen were elected to the stations set opposite their names respectively. To-wit:

Dr. William Brown, president.
Dr. Abraham Edwards, vice-president.
Dr. Stephen C. Henry, treasurer.
Dr. John L. Whiting, secretary.
Dr. William Thompson, censor.
Dr. S. C. Henry, censor.
Dr. John L. Whiting, censor.

The late treasurer not being present, no report of the state of the funds was received.

Resolved, That Drs. Brown, Henry and Edwards be a committee to apply to the Governor and Legislative Council of this Territory at their first session for such a revision of the Act, entitled "an Act to regulate the practice of Physic and Surgery within this Territory" as they may think will be most conducive to the best interests of the profession and the public generally.

Certain accusations were presented and read against Dr. Ebenezer Herd in conformity with the 16th and 28th articles of the By-Laws of this Society and signed by three members, to-wit: Dr. M. Chapin, Dr. J. L. Whiting and Dr. S. C. Henry, and the accused called on to make his defense at the next regular meeting. Dr. Herd requested that he might have access to the By-Laws and be furnished with a copy of the charges this day exhibited against him, which request was agreed to by the members present.

Resolved, That the secretary be directed to inform the officers elect, of their appointment, and request the late treasurer to turn over to his successor in office, the books, papers and funds belonging to the Society with his amount current.

And the Society adjourned.

Attest: J. L. Whiting, Secretary.

At a semi-annual meeting held this day, June 8, 1824, were present, Drs. Edwards, Whiting, Thompson, Herd, Chapin, and Nichols.

The president being absent from indisposition, the vice-president took the chair and called the Society to order.

The minutes of the meeting in January last were read and approved. The roll of members being called it was found that Drs. Brown, Henry, Rice, Conant and Hemenger were absent.

Resolved, That it be the duty of the secretary to direct the attorney for the Society to prosecute every infraction of the law under which this society is organized, by persons illegally practicing physic or surgery in this territory upon written information given thereof by any member of this society.

Resolved, That the persons giving information as aforesaid to the secretary, shall pay all costs consequent to such prosecutions, provided said prosecutions fail to succeed.

Resolved, That the names of all persons giving information as aforesaid shall be considered confidential by all members of this Society.

The report of the late treasurer with his account current, and notes and amounts against members of the Society were received and ready to be turned over to his successor in office.

Doctor Zina Pitcher was proposed and balloted for, and unanimously admitted a member of this Society in complying with the requisitions of the By-Laws.

And the Society adjourned to meet at 8 o'clock tomorrow morning at the same place.

JOHN L. WHITING, Secretary.

(*To be continued*)

WAKE UP!

WANTED—A new sound to arouse the physician who declares that "without a demonstration of the tubercle bacillus in the sputum THERE IS NO TUBERCULOSIS."

During the past three years the general public has been catching up with the general practitioner's knowledge of tuberculosis. There is plenty of evidence to-day that many physicians of repute and good standing in their neighborhood and in their medical society now need to catch up with the public understanding.

It ought to be an insult to tell a physician that, barring accident, the appearance of tubercle bacilli in the sputum is evidence of cavity formation; but it isn't. To too many, the statement comes as a revelation.

The day when the silk hat established the physician's standing in the community has passed (Gott sei dank). The title of "doctor" in a mighty few years will not conceal an empty head any better than the silk hat does now.—Editorial *Wisconsin Med. Journal*, November, 1912.

MOVING PICTURES AND THE EYE

I believe that moving pictures, if favorably presented, under the most favorable conditions, are a more or less severe test of distant vision and endurance on the normal eye, depending, of course, on the length of time the pictures are viewed. The vast majority of persons with normal eyes can endure four sittings of thirty minutes each per week, with but little or no temporary unpleasant symptoms and no permanent ill effects. The large proportion of those who complain of unpleasant symptoms under this time from moving pictures under the most favorable conditions have some error of refraction not properly corrected, improper muscle imbalance, or defect of sight, or constitutional condition lowering eye endurance. The symptoms produced are essentially those of asthenopia and their sequelæ. Moving pictures, however, under unfavorable circumstances, poorly developed, scratched or defective films, inferior cameras, objectionable screens, irregular and poorly-focused projection, too great or too slight illumination, etc., etc., even in moderation, will produce asthenopic symptoms in any pair of eyes, normal or abnormal. In those who suffer premature or severe asthenopic symptoms from moving pictures under the most favorable circumstances and in moderation, relief lies in the correction of any refraction error, and the benefits that medical science can afford, on the one hand, and less or no moving pictures on the other.—Bahn, *N. O. Medical and Surgical Journal.*

PUBLIC EDUCATION

Public education, like all human institutions, has its origin in an idea. It is composite of fact and fancy, and has attained its present proportions without a precedent. Its distorted features and its apparent impotency are not wholly due to the errors and ignorance of its advocates. Certain voracious members of society wish to keep all knowledge for themselves, while prejudice, graft, penury and favoritism has hampered the development of a rational system of public education. Without a precedent it is perfectly natural that error and abuse should mark the history of public education. These errors and abuses have arrested and turned aside the mental and physical energies of a multitude of people who have been taught to accept the statement of "authorities" as final, rather than to weigh the evidence themselves and to develop their inherent powers to discern and to discriminate.—Allen, *Lancet Clinic.*

The Journal of the Michigan State Medical Society

Published under direction of the Council.

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The Society does not hold itself responsible for opinions expressed in original papers, discussions or communications.

Subscription Price $2.00 per Year, in Advance.

FEBRUARY

EDITORIAL

Members sued or threatened should communicate at once with the chairman of the Medico-Legal committee, SUGGESTING but not RETAINING a local attorney. Power to engage local attorneys rests entirely with our general attorneys. Complications have arisen in several cases, and considerable trouble and unnecessary expense followed, because members have not observed this rule.

At the meeting of the Council on January 15, Dr. Frederick C. Warnshuis of Grand Rapids was elected secretary-editor. All official communications should in future be directed to him.

VALEDICTORY

The three years' work of the retiring secretary-editor is briefly summarized as follows:

The advertising pages of THE JOURNAL have been cleaned up so that it is one of the very few published (five in all) which absolutely complies in every respect with the standard set by the Council on Pharmacy and Chemistry. There were turned over to the editor at the beginning of his term, advertising contracts to the value of $1,315.12. There are now being turned over to the new editor, contracts worth $2,108.50. Of the contracts received three years ago, $832.86 worth were of preparations aeeeptable to the Council on Pharmacy and Chemistry. Of these we still retain $776.50, a remarkably small loss of acceptable contracts for three years. The retiring editor has weeded out all the undesirable, and has secured new, ethical and acceptable advertising to a total of $2,108.50.

We have published in the three years 148 more pages in THE JOURNAL than in any three consecutive years of its history, and at $353 less total expense. In 1909 the cost per page of editing and publishing THE JOURNAL was $5.10. This has been reduced during the three years to $3.66 in 1912, a reduction of $1.44 per page. In 1912, when we published 1,042 pages, this represented a saving of over $1,500. Without this saving we would have exhausted the income of the Society in 1912 by publishing 628 pages, whereas we actually published 1,042 and saved $904.37.

The cost of THE JOURNAL per member has also been reduced—from $1.21 in 1909 to 87 cents in 1910, a saving of 34 cents per member. The membership has increased from 1,962 to 2,168.

Finaneially the state soeiety is left in good condition. At the beginning of this

three-year term there was on hand $4,047.16, with $448.50 in the medico-legal fund. The state society fund is now $5,617.81, an increase of $1,570.65. The defense fund is $3,270.56.

It is with great personal satisfaction that the retiring editor submits this business record of his three years' labor as editor of THE JOURNAL and secretary of the state medical society.

OUR SPECIAL ARTICLE

We present in this number the second instalment of our Special Article on the Early Medical History of Michigan and the unpublished records of the Medical Society. We believe our members will read these articles with much profit and pleasure. Many interesting things are brought out by a study of this ancient history.

These old records show that at a meeting of the Society, June 9, 1821, a resolution was passed as follows:

"*Resolved*, That it is expedient at this time to appoint an attorney for this Society, whose duty it shall be to prosecute all infractions of the statute, made, adopted, and provided for regulating the practice of Physic and Surgery within this Territory."

It was made the duty of members to bring complaints to the attorney, but an illuminating item followed. At a meeting, June 8, 1824, two resolutions were adopted.

"*Resolved*, That it be the duty of the Secretary to direct the attorney for the Society to prosecute every infraction of the law under which this Society is organized, by physicians illegally practicing Physic or Surgery in this territory, upon written information given thereof by any member of this Society."

"*Resolved*, That all persons giving information as aforesaid, to the Secretary, shall pay all costs consequent to such prosecution provided such prosecution fail to succeed."

Evidently our forefathers were also troubled with illegal practitioners and with the enforcement of the Medical Practice Act.

EUGENICS

Within the past month the State Board of Health has issued a number of *Public Health* containing the preliminary report of the study in Eugenics, conducted by Miss Adele MacKinnie. This little book of forty-four pages may be had by application to the secretary of the State Board of Health, and every member of our Society should read it. The importance of this work with especial reference to feeble-mindness cannot be overestimated. The conditions reported are appalling and the necessity for some correction of these conditions is made manifest by a perusal of this report.

In ancient times Nature removed the unfit by the simple expedient of the law of "Survival of the fittest." With our modern care of the deformed and defective; with our modern sanitary measures and other influences, Nature's law does not operate. The unfit are given better care and opportunity in many instances than the normal.

With the normal additions to this class and the increase due to their own breeding, eugenists believe the number of unfit is increasing in alarming proportions. Modern civilization has decreed that every child has the right to be well born and this study is only a beginning of that necessary to correct existing conditions.

THE MICHIGAN LEGISLATURE

Up to date of going to press, we have not received the text of any of the bills of particular interest to the medical profession, which have been introduced in the present legislature—they have not yet

been printed. But the public press reports that Rep. David Monteith has introduced a bill to place the waterworks and sewage systems of every city in the state under the general control, so far as sanitary matters are concerned, of the State Board of Health. The bill provides that new plans and all details bearing on health and sanitation for new systems or extensions must have the approval of the State Board of Health.

Senator Murtha for the State Food Department has introduced a bill into the Legislature defining sausage and prohibiting its adulteration by added cereal or water.

At present, cereal is added to absorb and hold moisture, thus adding to the weight. When a consumer pays 15 cents a pound for sausage (with cereal) he pays at the rate of $300 a ton for corn meal, which can be bought anywhere for $30, and he is paying 15 cents a pound for water.

EMPLOYEE'S COMPENSATION

The recently enacted Employee's Compensation law provides that the employer shall have the privilege of having his surgeon examine injured employees. This would seem to imply that the employee shall select his own attending surgeon, and such is the interpretation of good attorneys, including Mr. Hal Smith of Detroit, who says, "The man has a choice of his physician; the employer has a right to have his physician examine the man."[1] The following, a ruling of the Accident Board at Lansing, taking the right away from the injured man of employing his own surgeon, unless he himself stands this expense, we quote from the *Detroit Free Press*, Jan. 15, 1913:

"The Industrial Accident Board has ruled that an injured employee must accept any reliable physician designated by the employer, or else pay the doctor bill himself. Any physician licensed to practice in Michigan is considered reliable in the absence of other circumstances.

"Many employers and Insurance Companies have complained that employees and doctors were in league to beat the employer. They claim that exorbitant fees are charged by the doctor for little or no attention, and that the employees feign injury to aid the doctor and secure additional compensation. The Insurance men say that the medical fees cost more than the compensation."

The consensus of the profession and of the working people was at first to hail with delight this act as a step in advance. We are unwilling to believe that the charges made in the news item quoted against the profession are true to any extent, but we are satisfied that the tendency of the ruling of the Accident Board will be toward increasing rather than decreasing the present industrial contract practice, regarding which, there has been so much dissatisfaction on account of inadequate compensation.

Will not such a ruling really put a premium on mutilating surgery, by tempting the doctor to give radical treatment for which insurance companies or corporations pay more liberally than for more conservative work?

We feel that the present ruling is neither in the interest of the injured employee nor the surgeon, but of the corporation. Cannot the Industrial Board and the employers trust the altruism of a profession which has kept its ranks through all the ages so unsullied by commercialism, when the life and livelihood of that profession has depended on the ills and misfortunes of those whom the profession was serving?

1. THE JOURNAL, December, 1912, p. 812.

SOCIETY NEWS

THE COUNCIL

Minutes of the Annual Meeting of the Council of the Michigan State Medical Society, at Detroit, Jan. 15, 1913

The annual meeting of the Council of the Michigan State Medical Society was called to order by Chairman Dodge at 10 o'clock in the forenoon of Wednesday, Jan. 15, 1913, at the Wayne County Medical Building.

Present: Chairman Dodge, Councilors Biddle, Rockwell, Hume, Seeley, DuBois, Baker, Witter, Ennis, Southworth; Dr. Walter H. Sawyer, president of the State Society; Dr. F. B. Tibbals, chairman of the medicolegal committee, and Dr. Wilfrid Haughey, secretary-editor. Councilor Kimball arrived soon after the meeting was called to order.

The minutes of the last meeting were read and approved.

The report of the secretary-editor was read by Dr. Wilfrid Haughey.

Chair referred the portion of the report dealing with county societies to the committee on county societies, all that portion of the report dealing with publication and printing to the committee on publication, and all that portion of the report dealing with finance to the committee on finance; the matter of appointing a delegate to the Congress of American Medical Colleges was referred to President Sawyer.

The report of the treasurer, in the absence of Dr. W. A. Stone, was read by the secretary, and was referred to the committee on finance.

The report of the medicolegal committee was read by Dr. F. B. Tibbals, chairman, and referred to the committee on county societies.

Moved by Councilor DuBois that all facts concerning completed suits for malpractice be printed in THE JOURNAL, at the discretion of the chairman of the medicolegal committee and with the consent of the principals in the cases.

Supported by several and carried.

A recess was taken for lunch.

After recess the reports of the standing committees were called for.

The committee on finance, through its acting chairman, Councilor Seeley, reported as follows:

"Your committee beg to report that they have audited the books as far as possible in the limited time; owing to an oversight the vouchers were not here, but by comparing the books of the secretary and treasurer we find them to agree and to be correct.

"We would report favorably in the matter of allowing postage to the different committees and would recommend that a sum not to exceed $10 be allowed to each committee to defray the expense of postage.

"All of which is respectfully submitted.

A. L. SEELEY, *Chairman.*"

Moved by Councilor Biddle that the report be accepted and adopted. Supported by Councilor Kimball and carried.

Moved by Councilor DuBois that the secretary be instructed to present to the House of Delegates an amendment to the by-laws providing that the benefits of the defense feature will only be furnished to individuals for the period in which they are in good standing, and that members will be carried as in good standing only to April 1, instead of June 1.

The motion was supported by Councilor Rockwell and carried.

The publication committee, Dr. A. P. Biddle, chairman, reported as follows:

"Your publication committee respectfully reports as follows:

"The limitation of advertisements to those having the approval of the Council of Pharmacy and Chemistry of the American Medical Association is endorsed and will be continued.

"The formation of an advertising bureau by the state societies of Wisconsin, Illinois, Michigan, Indiana and Ohio is approved, and the action of the bureau in employing a solicitor of advertising at the rate of 25 per cent. commission on original contracts and 15 per cent. on renewals, giving either party the privilege of terminating the contract on thirty days' notice, is endorsed.

"We still believe in spite of the additional expense to the Society that reprints should be offered to the writers of papers, as has been done in the past.

"We believe that the American Medical Association at the present time offers the best price and best results in printing, but if for any

reason the editor finds that he can get his printing done at a less rate and to better advantage he may submit such contract to this committee for its approval or rejection, and the action taken shall be final.

"The committee wishes to endorse the showing of the editor that in spite of the increased cost of production he has been able to produce THE JOURNAL at a less per capita cost.

"We believe that the matter of publishing papers in other journals should be left as it is at the present time; we think that the advertisement that is derived from the publishing in a journal of larger circulation of papers which have been read before the state or a county society accrues to the benefit of the state society.

"We approve of a department of press-clippings, provided it be limited to clippings from state papers or matters of state legislation, and providing the cost be not too great. We recommend that the editor be authorized to submit such contract to this committee.

"We believe that the distribution of JOURNALS among medical libraries desiring the same should be allowed, at the discretion of the editor.

"We do not approve at all of cartoons for our own JOURNAL, as exhibited by the cartoonist for the *Journal of the American Medical Association.*

"We are rather of accord that in all those firms which are recognized as ethical by the editor, before he publishes any criticism as clipped from another journal, he must correspond with that firm and get its side of the case.

"The question of increase of salary of the secretary-editor was laid on the table at the last meeting of the Council. At that meeting it was proposed that the secretary-editor be paid $150 per month and on motion the matter was laid on the table until this meeting. We have been rather impressed that with the policy of employing an outside solicitor of advertising gradually more of the advertising will be done through him and therefore we believe that it would be better for the secretary to receive a fixed salary. We propose that his salary be fixed at $900 per year, that we pay all expenses that may be authorized by the Council and that we pay his stenographer whatever is usual ($8 per week at present), but that the secretary-editor shall receive no commission from advertisements.

"All of which is respectfully submitted.

A. P. BIDDLE, *Chairman.*"

After discussion, with the consent of all members of the committee, the report was amended to fix the salary of the secretary-editor at $1,000 per year, expenses as authorized by the Council and stenographer's salary to be paid by the Society, with the understanding that the secretary-editor receive no commission from advertisements, but that he use due diligence in securing advertising from parties within the state.

Moved by Councilor DuBois that the report be accepted and adopted.

Supported by Councilor Southworth and carried.

The committee on county societies, Dr. A. H. Rockwell, chairman, reported as follows:

"We recommend that the policy of the Council in encouraging the union of county societies be continued, and the proposition for the union of county societies be left to the councilors interested, as recommended at the state meeting.

"We recommend that when uniform blanks are agreed on by the committee on uniform regulation of membership of the American Medical Association, the secretary be authorized to employ them.

"We recommend that an appropriation not to exceed $40 per year be made for the purpose of entertaining the secretaries of county societies at their annual meetings.

"We recommend that the state secretary be made a permanent delegate to the House of Delegates of the American Medical Association.

"We recommend that the annual meeting of the State Society for this year be held the 4th and 5th of September, with the meeting of the Council the evening before.

"We recommend that the program committee be requested to fix a date for the discussion of public health matters.

"We recommend that the report of the medicolegal committee be printed in full.

"All of which is respectfully submitted.

A. H. ROCKWELL, *Chairman,*
C. J. ENNIS,
F. C. WITTER,
A. S. KIMBALL."

Moved by Councilor Biddle that the report be aeeepted and adopted. Supported by Councilor Hume and carried.

Dr. Sawyer, president of the State Society, announced the appointment of Dr. Frank B. Walker to represent the State Society as delegate to the Congress of American Medical Colleges.

Councilor Biddle asked for information as to the right of the Wayne County Medical Society to elect a man who has retired from the practice of medicine to associate membership. It was the consensus of opinion that the county medical society has jurisdiction as to membership.

Moved by Councilor Biddle that Dr. F. B. Tibbals be reelected chairman of the medicolegal committee.

Supported by several and carried.

Moved by Councilor Biddle that the salary of the chairman of the medicolegal committee be fixed at $300 for the ensuing year. Supported by several and carried.

Moved by Councilor Baker that Dr. Hitchcock be reelected member of the medicolegal committee.

Supported by several and carried.

Councilor DuBois nominated Dr. F. C. Warnshuis of Grand Rapids for secretary-editor.

Councilor Ennis nominated Dr. Wilfrid Haughey of Battle Creek for secretary-editor.

The nomination of Dr. Haughey was supported by Councilor Baker.

The nomination of Dr. Warnshuis was supported by Councilor Southworth.

The Chair appointed Councilors Baker and Southworth as tellers.

After the ballot was taken the tellers reported as follows:

There were eleven votes cast.

For Dr. F. C. Warnshuis, 6.

For Dr. Wilfrid Haughey, 5.

The Chair declared Dr. Warnshuis elected secretary-editor for the ensuing year.

Moved by Councilor Ennis that the vote be made unanimous. Supported and carried.

Moved by Councilor DuBois that Dr. W. A. Stone be elected as treasurer for the ensuing year.

Supported by Councilor Ennis.

Councilor Rockwell stated that Dr. Stone did not care for reelection and suggested that inasmuch as the secretary-editor resided in Grand Rapids that some one from that place be elected treasurer.

Councilor DuBois moved that Dr. D. Emmet Welsh of Grand Rapids be elected treasurer.

Supported by Dr. Seeley and carried.

Councilor Baker announced that the tellers cast the ballot of the Council for Dr. Welsh for treasurer for the ensuing year, and he was declared elected.

Moved by Councilor Ennis that the next annual meeting of the Council be held in Detroit. Supported by Councilor Hume and carried.

On motion of Councilor Hume the Council adjourned.

WILFRID HAUGHEY, *Secretary.*

Report of the Secretary-Editor for the Year 1912, Made to the Council Jan. 15, 1913

To the Council of the Michigan State Medical Society:

As secretary of the Society and editor of THE JOURNAL, I have the honor to submit the following report:

The year 1912, while adding only ten to our total membership, has been a prosperous one for us. During this year the apportionment of delegates in the American Medical Association has been revised, and Michigan has gained one, now having four delegates instead of three.

The plan of medical defense put into effect three years ago, has proven its worth. There are still a few in the state who are opposed to our defense plan, but these few are decidedly in the minority. Last year it fell to my lot to report ten members who only paid $2 dues in the attempt not to benefit by the defense feature, but who were credited with dues and not subscription to THE JOURNAL, in accordance with our by-laws. This year there are no members in this category. Every member of the Society is subscribing to our defense plan and to THE JOURNAL. A number of men, who dropped out a couple of years ago on account of our defense feature, are still not members of the Society.

MEMBERSHIP

During the past three years the membership of the Society has increased. The report of my predecessor showed 2,021 members on Jan. 3, 1910. This included a number who were new members joined for the coming year, whose dues were received by the State Secretary before he closed his books for the year 1909. The comparative number has heretofore stood 2,021, but I had my stenographer go over the records and count all those whose dues for the

year 1909 were paid at the close of the year—1,962 in all. This is the number which really should be used in comparison with my reports, for my reports uniformly do not include new members for the ensuing year, whose dues happen to be received before the first of the year. We have a number of such this year, who do not appear in this report, sixteen new and eight reinstated. Taking this figure—1,962—as the proper total membership for 1909, there has been a practically constant gain, since the reorganization of the Society in 1902.

The total number of names of members on our mailing list at one time or another during the year was 2,381. Our membership increased but little over last year, and the total number of names on the mailing list remained about the same. This year the number removed for non-payment of dues in May (259) was smaller than last year by seventy-six, which shows a growing tendency to conform to our requirements and pay dues early. In 1910, my first year, 888 were delinquent on June 1. There have been too many members who remain delinquent throughout the year; 138 for the year 1909, 166 for the year 1910, 189 for the year 1911, and 195 for the year 1912. These last two years we have not been carrying members for twelve months after they become in arrears, while formerly we did. The total number who are still delinquent at the end of the year is much too large. This loss of membership through delinquency has been general throughout the state, forty-three county societies being represented in numbers varying from one to forty-four. The counties showing the greatest loss from this cause this year are: Wayne forty-four, Washtenaw thirteen, Houghton twelve, Kent nine, Shiawassee nine, Calhoun eight, Genesee, Ionia and Macomb six each, Lapeer and Dickinson five each.

At the close of the year 1911 we had 2,158 members who had paid their dues for the year, of whom twenty had died. At the close of the year 1912, on December 31, 2,168 members had paid their dues for the year, of whom twelve had died. During May, in accordance with the instructions of the House of Delegates, we dropped from our rolls 259 members for non-payment of dues. Of this number, 195 are still off the list (twenty-three of these are dead and quite a number removed from the state). During the year 1912 we received 150 new members and sixty-three reinstated members.

COUNTY SOCIETIES

There have been no changes in the county societies this year, with possibly one exception. The secretary has received communications from Antrim and Charlevoix counties asking what proceedings would be necessary to combine these two counties, also from Montcalm county looking to combination with Ionia. In both instances the county secretary has been advised to communicate with the councilors interested. We have been informed that Antrim and Charlevoix counties have been combined but have no official notice to this effect. Montcalm and Ionia have decided not to combine. We have been informed that a large number of physicians of St. Joseph county are anxious to combine with the Kalamazoo Academy of Medicine, but I have had no direct communications on this point. In the case of St. Joseph county and in the case of Montcalm and Ionia, two councilor districts are involved. This would require that the interested councilors meet and arrange for the change.

A number of county societies are existent in name only, so far as we are able to determine. They are Barry County, Mason County, Osceola Lake county, Macomb county, and Midland county especially. Macomb county has a large membership (16), practically all of whom hold associate membership in Wayne county, attending meetings there.

The following table shows the number in each county society on Dec. 31, 1912, also the number on Dec. 31, 1911, the average number for the years 1906 to 1911 inclusive, and the largest number in any one year. The Counties are arranged by councilor districts, and the totals of each district given so that districts may also be compared:

First Councilor District.—Gain of 33 members: Councilor, A. P. Biddle.

Counties	1911	1912	Average 1906-11	Largest No.
Macomb	20	16	17	20 (1911)
Oakland	43	44	44	47 (1908)
Wayne	514	550	400	550 (1912)
Total.....	577	610	461	617

Second Councilor District.—Gain of 2 members: Councilor A. E. Bulson

Counties	1911	1912	Average 1906-11	Largest No.
Hillsdale	17	13	15	18 ('09, '10)
Ingham	57	59	52	59 (1912)
Jackson	36	40	38	41 (1907)
Total.....	110	112	105	118

Third Councilor District.—Gain of 3 members: Councilor A. S. Kimball.

Counties	1911	1912	Average 1906-11	Largest No.
Branch	13	13	11	13 ('11, '12)
Calhoun	74	66	76	81 (1907)
Eaton	20	29	22	29 (1912)
St. Joseph	15	17	17	23 ('06, '08)
Total	122	125	126	146

Fourth Councilor District.—Gain of 16 members: Councilor A. H. Rockwell.

Counties	1911	1912	Average 1906-11	Largest No.
Kalamazoo	114	125	101	125 (1912)
Berrien	21	23	19	24 (1910)
Cass	11	14	14	17 (1907)
Total	146	162	134	166

Fifth Councilor District, loss of 19 members: Councilor W. J. DuBois

Counties	1911	1912	Average 1906-11	Largest No.
Barry	10	7	14	16 (1906)
Ionia	24	19	27	35 (1908)
Kent	144	132	111	144 (1911)
Ottawa	27	28	31	37 (1909)
Total	205	186	183	232

Sixth Councilor District, loss of 6 members: Councilor A. M. Hume

Counties	1911	1912	Average 1906-11	Largest No.
Clinton	21	23	20	23 (1912)
Genesee	80	77[1]	55	80 (1911)
Livingston	14	16	16	18 ('06, '07)
Shiawassee	37	30	33	53 (1909)
Total	152	146	124	174

Seventh Councilor District, loss of 9 members: Councilor W. J. Kay

Counties	1911	1912	Average 1906-11	Largest No.
Huron	20	19	20	22 (1906)
Lapeer	28	23	27	30 (1906)
Sanilac	10	8	11	13 (1909)
St. Clair	46	45	36	46 (1911)
Total	104	95	94	111

Eighth Councilor District, gain of 12 members: Councilor A. L. Seeley

Counties	1911	1912	Average 1906-11	Largest No.
Gratiot	14	26	23	32 (1906)
Isabella	18	17	15	18 (1911)
Midland	4	4	4	8 (1907)
Saginaw	40	41	42	59 (1907)
Tuscola	42	42	31	42 ('11, '12)
Total	118	130	115	159

1. Two transferred to honorary membership not included in this number.

Ninth Councilor District, loss of 1 member: Councilor B. H. McMullen

Counties	1911	1912	Average 1906-11	Largest No.
Benzie	5	5	6	7 ('6, '7, '8)
Gr. Traverse	24	23	25	27 (1906)
Manistee	16	16	15	16 ('11, '12)
Mason	5	4	7	11 (1907)
Tri	22	23	23	28 (1906)
Total	72	71	76	89

Tenth Councilor District, loss of 1 member: Councilor C. H. Baker

Counties	1911	1912	Average 1906-11	Largest No.
Bay	51	49[2]	51	59 (1907)
O.M.C.O.R.O.	19	20	19	24 (1908)
Total	70	69	70	83

Eleventh Councilor District, loss of 7 members: Councilor W. T. Dodge

Counties	1911	1912	Average 1906-11	Largest No.
Mecosta	21	20	21	22 (1909)
Montcalm	25	22	28	30 ('06-'08)
Muskegon	35	33	30	35 (1911)
Newaygo	12	10	11	14 (1909)
Osceola	7	8	10	11 ('06-'10)
Total	109	93	100	112

Twelfth District, loss of 12 members: Councilor C. J. Ennis

Counties	1911	1912	Average 1906-11	Largest No.
Chippewa	29	26	26	31 (1909)
Delta	18	19	20	22 ('06, '10)
Dickinson	15	13	12	15 ('09, '11)
Gogebic	13	12	13	14 (1910)
Houghton	53	48	55	60 ('08, '09)
Ontonagon	8	8	7	8 ('11, '12)
Marquette	38	36	35	38 ('07, '11)
Menominee	13	14	19	38 (1907)
Schoolcraft	7	6	9	10 (1907)
Total	194	182	196	236

Thirteenth Councilor District, gain of 5 members: Councilor F. C. Witter

Counties	1911	1912	Average 1906-11	Largest No.
Alpena	15	20	0	20 (1912)
Antrim	5	6	8	11 (1908)
Charlevoix	4	3	3	4 ('06, '11)
Cheboygan	8	7	3	8 (1911)
Emmett	14	14	14	15 ('07-'09)
Presque Isle	9	9	8	9 ('10-'12)
Total	54	59	36	67

2. One transferred to honorary membership not included in this number.

Fourteenth Councilor District, loss of 6 members: Councilor C. T. Southworth

Counties	1911	1912	Average 1906-11	Largest No.
Lenawee	35	37	43	56 (1909)
Monroe	22	22	18	22 ('11, '12)
Washtenaw .	77	69	96	111 (1909)
Total.....	134	128	157	189
Gr. total	2,158	2,168	1,977	2,499

Six districts show a gain in membership during the year. Eight districts show a loss in membership during the year. Twenty-three counties show a gain in membership during the year. Twenty-nine counties show a loss in membership during the year. Eight counties show no change in membership during the year.

MEMBERSHIP CERTIFICATES

Membership cards and certificates have been issued from this office as in the past, giving the members a pocket card and a membership certificate, giving the County Secretary a receipt for the member's dues, and retaining a stub in this office; all these having the same serial number. For several years past, the Committee on Uniform Membership of the American Medical Association has been urging uniform membership certificates, transfer cards, and report and membership blanks. At a conference of the various State Society Secretaries, held in Chicago, in October, the desirability of having uniform blanks was found to be almost universal, but it was also found that we were not yet prepared to accept any definite blank. The blanks used by the Michigan State Medical Society correspond in all essentials with those proposed by the Committee on Uniform Regulation of Membership, but in shape and size, and in actual wording they are somewhat different. We believe uniformity in this matter throughout the United States would be desirable, and would suggest that the Secretary be authorized to conform with whatever blanks are adopted at any time when the Committee on Uniform Regulation of Membership of the American Medical Association has finally determined this point. This determination may come during the present year but probably will not.

SECRETARY'S VISITS

This year the Secretary has not visited as many County Societies as in the two preceding years, but has visited several: Kalamazoo, Hillsdale, Berrien, Muskegon, Lenawee, and the Twelfth District. We believe much good comes from these visits, especially in the less settled districts, as throughout the term of the present Secretary, he has noticed a revival of interest after such visits in almost every instance. In addition, the Secretary, under authorization of the Council, attended the annual meeting of the American Medical Association, and the Association of State Secretaries and Editors, in Atlantic City. This was a most profitable meeting. Attendance upon the meeting of the Association of State Secretaries and Editors, gives the Secretary-Editor a valuable acquaintance among men who are meeting the same problems in other states he has to meet here, and gives him an insight into medical affairs, which is a valuable adjunct in his work as Secretary-Editor. The Secretary attended this meeting in St. Louis at his own expense. The meeting this year was not especially expensive, $82.60, including railroad fare and all necessary expenses.

FINANCIAL REPORT, 1912

Resources Jan. 1, 1912

Bonds (Edwards and Chamberlin)	$2,000.00
Savings Account Kalamazoo National Bank	1,703.95
Savings Account Old Nat. Bank Battle Creek	530.75
Commercial cash account Kalamazoo Nat. Bank.....	478.37
	$4,713.07

Receipts 1912

Cash on hand Jan. 1, 1912..	$ 478.37
Receipts from advertising...	1,851.92
Receipts from dues.....	4,108.00
Receipts for Defense Fund..	2,051.00
Receipts for Reprints.....	184.25
Receipts from miscellaneous sources	65.85
	$8,739.39

Disbursements 1912:

Paid Treasurer for Defense Fund	$2,051.00
For JOURNAL Expenses.....	3,821.90
For State Society Expenses.	1,249.74
For Reprints	423.99
Balance on hand Jan. 1, 1913.	1,192.76
	$8,739.39

Resources Jan. 1, 1913

(Exclusive of Interest)

Bonds (Edwards and Chamberlin)	2,000.00
Savings Account Kalamazoo National Bank	1,703.95
Savings Account Old National Bank, Battle Creek....	530.75
Cash on hand (Commercial)	1,192.76
	$5,427.46

Bal. Jan. 1, 1912..	$4,713.07
Bal. Jan. 1, 1913..	5,427.46
Profit for year (exclusive of inter't)	$ 714.39

Assets:

Advertising Bills receivable	$ 351.52
Reprint Bills receivable	49.50
Total	$ 401.02

EXHIBIT 1—JOURNAL EXPENSES

Printing including cuts, etc.		$2,439.02
Freight, addressing and mailing		93.29
Postage, second-class		95.00
Battle Creek and foreign	15.45	
First-class (one-half total)	70.05	
Addressograph (mailing list)		13.67
Wrappers one year		45.00
JOURNALS bound for files		15.00
Stenographer (one-half total)		206.00
Office Supplies (one-half total)		10.92
Editor's Traveling Expenses		57.18
Cabinet for Exchanges		10.00
Salary Editor		300.00
Advertising Commission		370.58
New York and Chicago agts.		43.44
Express to Chicago (cuts and MSS.)		13.36
Miscellaneous Printing		20.25
Telephone and Telegraph		3.69
		$3,821.90

EXHIBIT 2—STATE SOCIETY EXPENSES

Wayne County Memorial	$ 100.00
Council Meeting January, 1912	24.00
Bonds, Secretary and Treasurer	12.50
Stenographer (one-half total)	206.00
Postage (one-half total)	70.05
Office Supplies (one-half total)	10.93
Secretary's Traveling Expenses	168.71
Secretary's Salary	300.00
Flowers Dr. H. C. Walker	5.75
A. M. Directory	6.00
Councilors' Expenses	71.04
Express	1.60
Miscellaneous Printing	82.03
Telephone and Telegraph	3.04
Honorarium Sec. Council	50.00
Honorarium Stenog. Council	50.00
Reporting Annual Meeting	25.00
Registration Annual Meeting	15.00
Programs, etc., Annual Meeting	33.45
Public Health Education Committee	14.64
	$1,249.74

EXHIBIT 3—REPRINT EXPENSES

Printing Reprints		$ 423.99
Receipts for Reprints	$184.25	
Net cost to Society	239.74	
		$ 423.99

EXHIBIT 4—COMPARATIVE STATEMENT LAST FEW YEARS

RECEIPTS

	Dues	Adv.	Misc.	Reprints	Interest	Total
1904	$3,283.50	$2,025.92	$36.18	.....	.....	$5,344.60
1905	3,604.52	2,005.30	16.32	.....	.....	5,626.14
1906	3,290.29	2,297.78	25.81	.....	.....	5,613.88
1907	3,885.75	2,158.92	26.55	.....	.....	6,071.22
1908	4,033.50	1,786.53	16.00	.....	$ 27.68	5,863.71
1909	4,034.18	2,073.71	16.94	.....	48.61	6,174.44
1910	3,683.30	2,016.97	43.70	.....	86.69	5,830.66
1911	4,269.65	2,122.59	18.38	$156.00	201.66	6,768.28
1912	4,108.00	1,851.92	65.85	184.25	190.35	6,400.37

DISBURSEMENTS

	Journal	State Soc.	Reprints		Profit		Total
1904	.....	.....	.....		$119.69		$5,344.60
1905	$4,265.26	$ 772.42	.....		588.46		5,626.14
1906	4,092.94	1,499.32	.....		21.62		5,613.88
1907	4,193.06	924.71	.....		853.45		2,071.22
1908	4,226.98	941.77	.....		694.96		5,863.71
1909	4,263.45	739.62*	.....		1,171.37		6,174.44
1910	4,182.41	1,686.51*	.....		38.26	(loss)	5,830.66
1911	4,219.65	1,335.93	$350.81	186.22†	675.67		6,768.28
1912	3,821.90	1,249.74	423.99		904.74		6,400.37

* Bills for $253.36, properly 1909 expenses, were presented in 1910 for payment. $54.25 of which were JOURNAL expenses. The books for 1909 were held open until Jan. 3, 1910, making a material difference in receipts in 1909 and 1910.

† Addressograph.

EXHIBIT 5—TREASURER'S CASH

Jan. 1, 1912

Bonds	$2,000.00
Old National Bank, B. C.	530.75
Kalamazoo National Bank	1,703.95
Cash on hand	478.37
	$4,713.07

Receipts State Society Fund

Dues	$4,108.00
Advertising	1,851.92
Reprints	184.25
Miscellaneous	65.85

Interest

Old Nat. Bank	$ 21.53
Kal. Nat. Bank	68.82
Bond	100.00
	$190.35
	$6,400.37
	$11,113.44

Disbursements

Journal	$3,821.90
State Society	1,249.74
Reprints	423.99
	$5,495.63

Resources on Hand Jan. 1, 1913

Bonds	$2,000.00
Old National Bank	552.28
Kalamazoo National Bank	1,772.77
Cash on hand	1,292.76
	$5,617.81
	$11,113.44

Resources Jan. 1, 1913	$5,617.81
Resources Jan. 1, 1912	4,713.07
Increase during year	$904.74

JOURNAL ADVERTISING

At the last annual meeting of the Council, the Editor was authorized and instructed to throw out all advertising not approved by the Council on Pharmacy and Chemistry, cancelling all contracts calling for such advertising. At the meeting last year, we did not know exactly what this would cost us. This action caused the termination of contracts worth $585 reducing the advertising contracts on hand by so much, and decreased materially the advertising income. But we are pleased to report that through persistent and individual efforts throughout the whole year, we have added to our contracts more than enough to make up for this loss, $802 worth to be exact, in addition to a few short term contracts, which have been run during the year, and one contract for $135 for one full year. The total value of the advertisements still running, which were in the JOURNAL at the beginning of my term is $776.50. The balance of the advertising we now have I have placed in the JOURNAL, and while doing so have kept the earning power about $2,000 per year, so that the JOURNAL could continue to be published at not too great expense. I have placed, and still have in the JOURNAL a total of $1,332. We therefore have in contracts $2,108.50 worth of advertising, more than we have ever had on hand before at the beginning of a calendar year, and not an advertisement but what is perfectly legitimate so far as we are able to determine. We have declined during the year seven or eight hundred dollars worth of advertising, which has been submitted to us, but which we could not take on account of our standard. We also have promises of at least two other advertisements, to begin early in the year.

ADVERTISING SOLICITOR

At the meeting of the Council last January, the Secretary was authorized to enter into a compact with other State Medical Journals of the Central States, to secure a competent advertising solicitor, with headquarters probably in Chicago. This matter has been hanging fire throughout the year. At one time we engaged a man, whom we thought would be satisfactory, but were compelled to ask for his resignation after a short time. During December we found another man, who has gone to work, who comes to us highly recommended by Mr. Braun of the American Medical Association. The Secretary was authorized to spend during this year, not to exceed $200, in bringing this combination into effect. However, owing to the lateness of the time in the year, when this last man was secured, the Secretary felt that he should not enter into the combination beyond this present meeting of the Council.

This man requires a little advance of money, $5.00 per week for each Journal, for running expenses. Four of the other journals are advancing, not to exceed $100, which is to be charged back upon advertising commissions. We have advanced $25. The expense we were to, with our former solicitor, $5.04, makes the total expense of this bureau thus far,

$30.04. It is rather early to determine how much returns we will have, since this man only went to work for us late in December, but indications are that he will do considerable business. He has already earned in commissions more than we have advanced him. The terms of our agreement with him are given in a separate statement. We are to pay him only for advertising coming to us through his efforts. He or we are privileged to terminate the agreement upon thirty days' notice, and as soon as this agreement is terminated, his commissions for all advertisements which he has furnished us automatically cease. We think this a very good contract, and believe it would be well to continue it for a sufficient time to give it a fair trial.

We also have a somewhat similar agreement with a Mr. Tufts in New York City, to represent us in that territory. Mr. Tufts is the advertising manager of the *New York State Journal of Medicine*, and represents the *Journal of the A. M. A.*, and several state journals in that territory. We pay him commissions only, no advances.

REPRINTS

We have furnished reprints to such of our contributors as ask for them, during the past year, the same as during the previous year, and in our financial account is a statement of this expense. We find that a very large percentage of our contributors ask for the one hundred free reprints, which accounts for the increased cost reprints are to us. Furnishing reprints has cost us this year $239.74.

PRINTING

Since March the JOURNAL has been printed on the press of the American Medical Association. Having this printing done outside of the city of the editor, has, in a few instances, delayed us for from one or two, to ten days in the mailing date of the JOURNAL, but no journal has been mailed more than ten days late, and only one that late. That time the delay was due to a teamster's strike in Chicago.

The bid of the former publishers for printing the Journal for 1912, which was presented to the Council at their last meeting, was a material advance in price. According to that bid, the one thousand pages, including advertising, which we have published this year, would have cost us about $3,530 exclusive of cuts. The actual cost has been $2,439.02 for printing and engravings, which shows a very material saving. The expense of freight, cartage, and addressing, all together has not been more than the former printers were charging us for addressing, and mailing the JOURNAL, $93.19 against $100.50 last year. The following table is interesting in many ways. It shows a comparison of the JOURNAL during each year of its existence, giving the total number of pages including advertising, the percentage of the pages which were advertising, the total cost of editing and printing, the cost per page, the advertising receipts, the cost to the Society per member, and the number of members. This table shows a constant decrease in the cost of the JOURNAL for the past three years, when figured up as cost per member, or cost per page. It also shows that by assigning one dollar of our dues to JOURNAL expenses, the JOURNAL has been a financial success, and in a way a money maker, even in this last year when our advertising income was materially reduced at the beginning of the year.

Years	No. Pages	Per Cent. Adv.	Total Cost	Cost Per Page	Adv. Received	Cost Per Member	No. Mem.
1902	248	21	.....	.....	.....	.....	....
1903	826	23	.....	.....	.....	.....	1,653
1904	799	28	.....	.....	$2,025.92	.....	1,777
1905	870	28	$4,265.26 (Change of Editor.)	$4.89	2,005.30	$1.27	1,790
1906	942	28	4,096.94	4.34	2,297.78	.97	1,873
1907	904	28	4,193.06	4.64	2,158.92	1.07	1,892
1908	857	24	4,226.98	4.93	1,786.53	1.29	1,883
1909	836	25	4,263.45 (Change of Editor.)	5.10	2,073.71	1.21	1,962
1910	894	21	4,182.41	4.67	2,016.97	1.06	1,979
1911	928	23	4,219.65	4.55	2,122.59	.97	2,158
1912	1,042	17	3,821.90	3.66	1,851.92	.87	2,168

If we had retained the advertisements on hand at the beginning of this year we could have earned nearly $2,500 in advertising this year, and I anticipate more than that much next year. There is no reason why our JOUR

NAL should not earn in the neighborhood of $3,500 a year in advertising, if the editor could have the time or an experienced solicitor to devote to the work. Running a journal with perfectly clean advertising makes the space more valuable, but ruling out so many things makes soliciting advertising no sinecure.

TRUTH ABOUT MEDICINES

We have during this year started a department of the "Truth About Medicines," giving abstracts of reports of patent and proprietary medicines, and reports of special interest upon pharmaceutical investigations and other matters. We have been frequently complimented by members upon this department, and think it is well worth continuing.

COUNTY SOCIETY REPORTS

As in the past, we have felt that the primary object of the JOURNAL was to render service, and have therefore made the department of County Society reports as prominent as possible, publishing every scrap of County Society information we have received. This department has occupied 127 pages this year as compared with 93 in 1911; 71 in 1910; 40 in 1909; 27 in 1908, which was the lowest mark ever reached. Thirty-three County Societies are represented with 92 reports. There are still some of even our larger and more prominent Societies who rarely if ever, contribute to this department, although such contributions have been repeatedly solicited. We have published this year 92 illustrations, one of which appeared in colors. This is an increase of 33 over last year.

PUBLISHING OF PAPERS

The Constitution and By-Laws of the Michigan State Medical Society in so far as they deal with the publishing of papers read before our Society or its component branches, is the same as during the time when we published transactions, providing that any member may publish his paper in any reputable journal published outside of the State, if the journal appends a legend, "Read before the Michigan State Medical Society." We now have a journal which is recognized throughout the country, as one of the leading, first class journals, and I would suggest that the Council consider whether it would be wise to amend the By-Laws, providing that papers read before the Michigan State Medical Society, and if advisable before the County Societies, are the property of the Society and of the JOURNAL, requiring that permission to publish elsewhere, be obtained from the publication committee.

PRESS CLIPPINGS

During my three years' service as editor of the JOURNAL one of the most difficult things has been to keep up the department of news items. Practically no items are sent in by members, as instanced by the fact, that this last year we have had less than a dozen sent to us. It therefore devolves upon the editor to personally scan a number of newspapers, looking for items of interest to Michigan medical men—even looking for reports of the death of members. I believe it would be money well invested to engage the services of a press clipping bureau.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

We have received an invitation from the Association of American Medical Colleges to appoint a delegate to the annual meeting of the Association, which will be held at the Congress Hotel, Chicago, Wednesday, Feb. 26, 1913. This meeting is almost always held in conjunction with the annual conference of the American Medical Association on Medical Education, Legislation, Organization, etc.

COMMITTEE EXPENSES

The House of Delegates at Muskegon, recommended the appropriation, and the Council appropriated $20 for the use of the Public Health Education Committee, for the year, up until the next annual meeting. Would it not be well to consider appropriations for other standing or special committees of the State Medical Society, inasmuch as we have now established a precedent in this matter, and have ample funds? I have a communication from the new committee on the Study of Specialties, asking whether it would be possible for the State Society to furnish stationery for this committee. I understand that is all the committee asks, but without authority, and as long as the previous policy of the Society has always been against this practice, I told the chairman I would bring this matter up at this meeting of the Council.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The Council in its annual report to the House of Delegates in Muskegon, suggested the advisability of Michigan sending the Secretary of the State Society as one of the delegates to the House of Delegates of the American Medical Association. This suggestion was reported upon favorably by the business committee, the Secretary was nominated by the nominating committee, and elected by the House of Delegates. Nothing was said about the permanency of this policy, but I believe it was the intention of the Nominating Committee and of the House, that the Secretary be permanently a delegate. If this is the understanding of the Council, a rule of procedure might be enacted at this or a future meeting, providing that the Secretary be certified regularly as a delegate. This certification on account of the By-Laws of the American Medical Association, requires that the term be stated for two years, but these By-Laws do not prevent our making this service a permanent duty of the Secretary.

ANNUAL MEETING

The House of Delegates at Muskegon selected September as the date for the annual meeting and Flint as the place. It devolves upon the Council at this meeting, as in past years, to fix the actual date. Last year there was some misunderstanding and conflict of dates. This year about the first of December, the Secretary wrote to the Secretary of the Genesee County Medical Society, calling their attention to the fact that the Council at this meeting must fix the date for the annual meeting and asking what suggestions they had, if any. Dr. H. E. Randall, chairman of the Arrangements Committee replied that they favor the first part of September, and suggested the 3d, 4th and 5th Wednesday, Thursday and Friday. This suggestion is three days and our meeting has previously occupied only two days with the County Secretaries and the Council meeting the day previous.

COUNTY SECRETARIES ASSOCIATION

For the two years previous to my term an appropriation of approximately $75 a year was made for entertainment of the County Secretaries Association, and the meetings of this Association were quite well attended. At the beginning of my term this appropriation was omitted, and the meetings of the County Secretaries' Association for these years have been poorly attended.

Many states have a meeting of the County Secretaries or of County Secretaries and County Presidents, and find that it is a great help in the work of the Association. We believe it would be here, and know that what meetings we have had, have been of distinct benefit. The County Secretaries at their meeting in Muskegon last July, suggested that if the Council could make a little appropriation to supply a dinner or some similar entertainment for the Secretaries, we would have much better attendance, and have requested the Secretary of the Association, Dr. Southworth, to bring this matter before the Council. I am merely mentioning it in my report so that the matter will not be overlooked.

I present herewith several communications for your consideration and further instruction.

All of which is respectfully submitted,

WILFRID HAUGHEY, Secretary.

Treasurer's Report, State Society Fund

Jan. 1, 1912

Kalamazoo National Bank Savings	$1,703.95
Old National Bank Savings	530.75
Bonds	2,000.00
Balance (Commercial)	478.37
	$4,713.07

	Expenditures	Receipts
January	$ 369.47	.....
February	588.02	$ 756.00
March	432.68	802.67
April	372.94	867.01
May	370.74	1,385.29
June	434.06	341.11
July	483.66	400.33
August	564.25	336.92
September	441.90	131.51
October	426.29	262.64
November	403.74	175.87
December	607.88	750.67
On Hand:		
Commercial Account.	1,292.76	190.35*
Kalamazoo Nat.	.....	478.37
Bank Savings	1,772.77	1,703.95
Old National	552.28	530.75
	$9,113.44	$9,113.44

* Interest.

Receipts Interest

Bonds, Edwards & Chamberlin Co.	$100.00
Old National Bank, Battle Creek	21.53
Kalamazoo National Bank	68.82
	$190.35

RECEIPTS, EXPENDITURES AND PROFITS FOR YEAR 1912

Receipts

Dues	$4,108.00	
Advertising	1,851.92	
Miscellaneous	65.85	
Interest	190.35	
Reprints	184.25	
		$6,400.37
Expenditures		5,495.63
Profit		$904.74

MONEY AND BONDS ON HAND INCLUDING INTEREST AS FOLLOWS

Kalamazoo National Bank (savings account)	$1,772.77	
Kalamazoo Commercial Account	1,292.76	
Old National Bank (savings account)	552.28	
Bonds—Edwards & Chamberlin Hdw. Co., Kalamazoo	2,000.00	
State Medical Fund, Jan. 1, 1913		$5,617.81
State Medical Fund, Jan. 1, 1912		4,713.07
Increase		$904.74

DEFENSE FUND

Jan. 1, 1912

Certificate of Deposit Detroit Trust	$1,500.00	
Balance Peoples Savings	1,674.06	
		$3,174.06
Receipts State Secretary	$2,051.00	
Interest:		
Peoples Savings	$36.73	
Security Trust	15.00	
Detroit Trust	60.16	
	$111.89	
		$2,162.89
		$5,336.95

Disbursements

Checks Nos. 32 to 49	$2,066.39	

On Hand Jan. 1, 1913

Cert. Dep. Detroit Trust	$1,500.00	
Security Trust Cert. Deposit	500.00	
Bal. Peoples State Savings	1,270.56	
	$3,270.56	
		$5,336.95

Assets

Jan. 1, 1913		$3,270.56
Jan. 1, 1912		3,174.06
Increase		$96.50

W. A. STONE, Treasurer.

Report of Chairman of Medico-Legal Committee

To the Council of the Michigan State Medical Society.

After three years of work your Medico-Legal Committee are able to draw fairly accurate conclusions as to the value, cost and efficiency of the Medico-Legal Bureau.

There have been reported to us, during this time, 62 cases, all but 1 or 2 of which are cases of alleged malpractice (civil). This means that approximately 1 in every 100 members of the Society is annually threatened with a suit for damages arising from his professional duties. In one-half the cases suit has been started, which means that the attorney for the plaintiff paid a few dollars in court costs, hoping for a large return on the investment, from a cash settlement with the doctor or a successful outcome at trial. Forty per cent. of the cases where suit is brought have reached trial and in one-third of these (4 out of 12) a jury has given an adverse verdict. Of these 4 cases, 2 were defended by the doctors themselves, 1 by an Insurance Co., and 1 by us. Our case was carried to the Supreme Court without changing the verdict, one of the other cases is now in appeal, one has been settled without appeal, and we have no knowledge as to what will be done in the remaining case. Hence we deduce the conclusion that our record for winning cases is much better than has resulted in cases not directly defended by us. We have defended six with one lost, while six others have gone to trial with three lost.

We hope to improve this record in coming years by educating the profession as to their individual liability and their vulnerability in that no physician can afford in any way to aid and abet a suit against another, for he is himself equally vulnerable. Education of the individuals of the profession along these two lines will do more than anything else to eliminate this great menace.

When defended by competent attorneys no man will be finally held guilty of malpractice who has not been negligent or incompetent. Hence the value of fore-knowledge as to one's legal liability to the public, that the doctor may be always able to prove his innocence of any alleged malpractice.

From the Treasurer's report you will note that this fund is in good condition and that we have broken even this year, despite unusual legal expenses. That we are able, for the

small sum of $1 per year to furnish such adequate defense to each member of the Society, is proof positive of the wisdom of our system and the economy of our management.

We are fortunate in having general attorneys who discourage rather than encourage litigation and our plan of a definite contract with local attorneys has repeatedly proved its wisdom.

Twenty-six counties are represented in the cases handled.

Most of the 1910 and 1911 cases are finally disposed of, in one way or another, and it is not thought that any of these will give further trouble. Hence with our active cases, limited to those arising during 1912 we face the future with confidence expecting to prove of increasing value to the profession in coming years.

Respectfully submitted,
E. C. TAYLOR,
C. B. STOCKWELL,
CHARLES W. HITCHCOCK,
F. B. TIBBALS.

ALPENA COUNTY MEDICAL SOCIETY

The annual dinner and clinic of the Alpena County Medical Society was held in Alpena December 19. The clinic was held at 9 a. m. at the offices of Drs. McKnight, McDaniels and Williams; Dr. Don M. Campbell of Detroit being in charge, assisted by Dr. James E. Robb of Detroit. Over forty clinical cases presented themselves for examination and treatment. Of these Dr. Campbell selected typical ones, and demonstrated the submucous resection of the septum, enucleation of the tonsils and adenoids, and the operation for strabismus. At 1 o'clock at the Elks' Temple occurred the annual dinner of the Medical Society, at which the following guests were present: Drs. Don M. Campbell, Detroit; James E. Robb, Detroit; Frank C. Witter, Petoskey; Chas. Tweedale, Sheboygan; Mr. James Collins, Alpena; Rev. James Pascoe, Alpena; Rev. I. W. Stewart, Alpena. Members present were Drs. S. T. Bell, D. A. Cameron, A. E. Bonnerville, J. W. Small, A. Komoracki, W. A. Secrist, Leo Secrist, Otto Bertram, J. D. Dunlop, E. E. McKnight, John Jackson, C. M. Williams, George Lister, Hillman; John Purdy, Long Rapids.

Following the dinner President S. T. Bell introduced the toastmaster, J. D. Dunlop, who in a happy manner presented the speakers on the program. Don M. Campbell of Detroit responded with a careful paper on the "Clinical Significances of Diseases of the Tonsil," outlining the various diseases that might infect man through the medium of diseased tonsils. James E. Robb of Detroit followed his chief by discussing the surgical method of dealing with diseased tonsils. Frank C. Witter of Petoskey, Councilor of the Thirteenth District, responded with a paper on "Ectopic Gestation," both valuable and instructive.

Following the president's exaugural address, the president, S. T. Bell, presented the secretary, C. M. Williams, with a gold medal as a token of appreciation of his work for the year. Dr. Williams responded by likewise presenting the president with a gold-headed cane, a gift of the Alpena County Medical Society to the retiring president.

Officers for the ensuing year were elected as follows:

President, E. E. McKnight.
Vice-president, J. W. Small.
Secretary-Treasurer, C. M. Williams.
Delegate, C. M. Williams.
Alternate, D. A. Cameron.

President's Exaugural Address

Alpena County Medical Society, 1912

Samuel T. Bell

In rising to address this Society as its president for the past year, I must confess to some feeling of pride, for which I have little doubt you will pardon me, as it is a feeling born, and legitimately born, of a deep sense of the honor you conveyed on me. The honor came unsought and it is for that reason all the more appreciated. I count it no light matter to have been thought worthy to follow those good men of our profession who have been previously accorded the highest office in the gift of our Society. And I trust that you will accept the assurance of my heartfelt thanks. Yet, deeply as I have appreciated the honor, the honor was made pleasant and agreeable by the kindly feelings you have at all times shown me, not alone during my term of office, but during my whole professional career here of over twenty years.

I feel confident in saying that there is not another city in our state, or in fact, in the whole United States, where all the physicians are so kindly disposed to one another as here. We have no feelings, no jealousy, no stabbing in the back. We are, as it were, one big fam-

ily of brothers, ever ready to extend the glad hand of fellowship and good will, and pleased to learn of the success of any one of our members, and with equal fortitude and determination, we will stand shoulder to shoulder to uphold the integrity and honor of our profession, to fight each other's battles if the cause is honest and just.

Gentlemen, I do not propose in this address to take up any one aspect of medicine in particular, as is done in many addresses of this character; nor to give a general review of the progress of medicine during the past year with which, indeed, many of you are better acquainted than myself. For to trace successfully the evolution of any one of the learned professions would require the hand of a master, of one who, like Darwin, could combine the capacity for patient observation with philosophic vision.

In the case of medicine, the difficulties are enormously increased by the extraordinary development which belongs to the history of the past century. The rate of progress has been too rapid for us to appreciate, and we stand bewildered, and, as it were, in a state of intellectual giddiness when we attempt to obtain a broad comprehensive view of the subject. Meanwhile the throbbing vitality of modern medicine, in lands widely distant, bears eloquent testimony, free and cosmopolitan. No longer hampered by the dogmas of schools we may feel a just pride in a profession almost totally emancipated from the bondage of error and prejudice. Distinctions of race, nationality, color and creed are unknown within the portals of the temple of Aesculapius. Dare we dream that this harmony and cohesion so rapidly developing in medicine, obliterating the strongest ties of division, knowing no tie of loyalty but loyalty to truth. There remains for us, the bounden duty to cherish the best traditions of our fathers, particularly of the men who gave to medicine its most distinctive features, of the men, too, who found for us the light—Diterly of Gruk, Laennec, Harvey, Sydenham—those ancient "founts of inspiration." Models for all times in literature, science and practice.

I at least would like to see our hospital started and completed on right lines and doing much good before my time comes to join the group of shades, shepherded by Hermes Trismegistus on the banks of Acheron. It may be that all will be forgotten when my camp is pitched in the fields of Asphodel and my canoe glides over the waters of Lethe, but at least I want to take away with me a feeling that I had the confidence and esteem of my brother practitioners and that their confidence was not wholly misplaced.

BAY COUNTY MEDICAL SOCIETY

The annual meeting of the Bay County Medical Society was held at the Bay City Club Monday evening, Dec. 9, 1912. The president, Dr. J. William Gustin of Bay City entertained the Society at a well-appointed dinner at 6 p. m., after which the meeting was called to order. The vice-president, Dr. Floyd H. Randall took the chair and called for the president's address. Dr. Gustin responded with a speech summing up the work of the year and making suggestions for the year to come. He commented favorably on the custom of holding weekly meetings and of doing away with office hours Tuesday evening, and holding our meetings early on that evening. He recommended a better understanding between the physicians and druggists, a closer bond of brotherhood among the members of the Society. His most important recommendation was the establishment of a sinking fund in preparation for the purchase of a home for the Society.

The report of the secretary-treasurer followed and is given in part:

Number of members, 51; deceased, 1; dropped, 1; new members, 1; number of meetings, 28; average attendance, 15; number attending twenty meetings or more, 7; unpaid dues, 1.

The Society was incorporated under the laws of the state of Michigan during the year, and is now governed by a board of directors.

The Bulletin has been published somewhat irregularly during the year, but will probably be issued regularly during the next year.

The secretary attended the meeting of the County Secretaries' Association at Muskegon in July.

FINANCIAL REPORT

RECEIPTS

Amount on hand Dec. 11, 1911	$ 98.07
Dues for 1912	237.00
Sale of keys	.65
Total receipts	$335.72

EXPENDITURES

State Society dues	$147.00
Incorporation expenses	32.40
Printing and advertising	7.90
Postal cards, stamps, telegraph	22.06
Speakers' expense	7.50
Keys	3.00
Secretary's expense	8.00
Banquet	41.00
Flowers	5.00
Total expenditures	$273.86
Balance on hand	$ 61.86

H. N. BRADLEY, Sec.-Treas.

Following reports of officers the Society proceeded to the election of six directors. The following were elected: Drs. C. H. Baker, H. N. Bradley, John McLurg, J. W. Hauxhurst and T. A. Baird of Bay City, and Dr. G. W. Moore of Munger.

The directors immediately held a meeting and elected the following officers:

President, G. W. Moore, Munger.

Vice-president, Dr. C. H. Baker, Bay City.

Secretary-Treasurer, Dr. H. N. Bradley, Bay City.

President-elect Moore announced the following Program Committee: Dr. C. A. Stewart, Dr. R. E. Scrafford and Dr. A. F. Stone, all of Bay City.

The first meeting of the year 1913 was held at the Wenonah Hotel, Bay City, Tuesday evening, January 7 at 7:30 p. m. Dr. F. G. Buesser of Detroit was the guest of the evening. Dinner was served in the dining-room of the hotel at 6 p. m. to twenty-eight members of the Society. The number was augmented to thirty-one by 7:30 when a paper was given by Dr. Buesser on

The Differential Diagnosis of Organic and Functional Diseases of the Stomach

The paper was illustrated by a comprehensive diagnostic chart and case histories and diagrams thrown on the screen by a reflectoscope. The paper was listened to with great interest and free discussion followed.

The Program Committee reported weekly meetings arranged for the next three months.

H. N. BRADLEY, Secretary.

CHIPPEWA COUNTY MEDICAL SOCIETY

The Chippewa County Medical Society held its first meeting this year at the Park Hotel, Jan. 7, 1913. The president-elect in the chair: members present eleven.

After discussing some clinical cases and "Hernia" and "Post-Operative Shock," Dr. F. H. Husband read a very interesting paper on

"Spontaneous Hemorrhage in the New-Born,"

and reported a case with successful treatment, which I was instructed to report to the JOURNAL.

The report of the case, which was successfully treated by the doctor with subcutaneous injections of whole blood taken from its father, is as follows:

Baby born Jan. 2, 1912, 6:30 p. m., the child was a big strong healthy looking boy. On Jan. 3, a mark resembling a bruise was noticed on the forehead. Jan. 4, 1912, the foreskin was dilated, bleeding at once began and did not stop as was expected. Adrenalin chlorid and other astringents were applied with no result. Mark on forehead began enlarging and bulging, and each day more blotches appeared on different parts of the body. In the mouth the mucous membrane of the roof was hanging like drops of blood, there was also bleeding from the nose. Each day the blotches on the body increased in size. On Jan. 6, 1912, blood was found to be oozing from the cord, and the hemorrhage increased rapidly. Adrenalin chlorid was administered, and antipyrin and a gauze compress were applied to the cord without favorable result.

Jan. 8, 1912, at 5:30 p. m., an injection of 15 c.c. of whole blood from the father was given into the back of the child, following which a marked change was noted in the child's appearance. The color improved, the drawn anxious look disappeared, the drops of blood became fainter, and the protruding of the blotches under the skin began to disappear, hemorrhage from the cord lessened, the baby slept heavily after each injection, and there was practically no oozing from the cord after the second injection of 20 c.c., which was given Jan. 9, 1912, at 9:45 a. m.

There were one injection of 15 c.c. and six of 20 c.c. given as follows:

1. Jan. 8, 1912, at 5:30 p. m, 15 c.c.
2. Jan. 9, 1912, at 9:45 a. m., 20 c.c.

3. Jan. 9, 1912, at 5:00 p. m., 20 c.c.
4. Jan. 9, 1912, at 10:45 p. m., 20 c.c.
5. Jan. 10, 1912, at 10:45 a. m., 20 c.c.
6. Jan. 10, 1912, at 4:45 p. m., 20 c.c.
7. Jan. 11, 1912, at 9:45 a. m., 20 c.c.

Jan. 14, 1912, cord came off and the navel appeared more healthy than most. Some months after child had a large ulcer in mouth, caused from scratching with finger nail while sucking fingers. There was no sign of bleeding and the ulcer healed rapidly as soon as cause was removed.

Result of annual election of officers for the Chippewa County Medical Society:

Dr. F. H. Husband, president, Saulte Ste. Marie.

Dr. R. E. Stocker, vice-president, Brimley.

Dr. Jas. Gostanian, secretary and treasurer, St. Ste. Marie.

Delegate at large to Flint in September, J. J. Lyon.

Alternate, Dr. J. A. Ferguson.

J. GOSTANIAN, Secretary.

GRAND TRAVERSE COUNTY MEDICAL SOCIETY

The January meeting of the Grand Traverse-Leelanaw County Medical Society was held Jan. 7, 1913, in the offices of Dr. Frank Holdsworth, with a large attendance. Papers were read by Dr. J. M. Wilhelm and Dr. J. A. J. Hall, both papers being vigorously discussed.

As an appreciation of his efficient services for several years as secretary and treasurer, the Society tendered Dr. R. E. Wells a copy of the eighth edition of Osler's "Practice of Medicine."

J. A. J. HALL, Secretary.

ISABELLA COUNTY MEDICAL SOCIETY

The Isabella-Clare County Medical Society held its annual meeting December 30 at the office of Dr. C. M. Baskerville, Mount Pleasant, Michigan. The evening was spent in discussing and planning the work of the Society for the new year. Meetings will be held on the second Monday of March, June, September and December; the December meeting to be the annual meeting. The topic for discussion at the March meeting will be

The Relation Between Scorbutic and Purpuric Conditions

the discussion to be opened by Dr. C. D. Pullen.

Arrangements were made for some free lectures to be given under the auspices of the Isabella-Clare County Medical Society and the Central State Normal School, the lecturer to be furnished by the American Medical Association, the hall to be furnished by the Normal School. Announcements will be made later.

The election of officers for 1913 resulted as follows:

President, Dr. Donald McRae, Beal City.

Vice-president, Dr. M. F. Brondstetter, Mt. Pleasant.

Secretary and Treasurer, Dr. S. E. Gardiner, Mt. Pleasant.

Directors: Drs. Pullen, Johnston and Baskerville.

Members in good standing: Drs. H. V. Abbott, C. M. Baskerville, M. F. Brondstetter, George Foden, S. E. Gardiner, A. T. Getchell, B. F. Johnston, Donald McRae, C. D. Pullen, C. J. Power, J. A. Reeder, F. C. Sanford.

S. E. GARDINER, Secretary.

JACKSON COUNTY MEDICAL SOCIETY

The twelfth annual meeting of the Jackson County Medical Society was held in the parlors of the Nurse's Home at 2 p. m., Dec. 5, 1912.

Dr. Morley Vaughan, intern at the Jackson City Hospital, was received into membership.

The election of officers for the ensuing year made Dr. C. D. Munro, president; Dr. J. C. Smith, vice-president; Dr. G. A. Seybold, secretary; Dr. P. J. Edwards, treasurer; Dr. P. Hyndman, delegate; Dr. C. D. Munro, alternate.

After the business session the meeting adjourned to the operating room of the city hospital where Dr. Angus McLean of Detroit conducted a surgical clinic on hernia, stomach and gall-bladder surgery and abdominal injuries.

At 8 p. m. the annual banquet was held at the Otsego Hotel. Dr. Hyndman acted as toastmaster, and toasts were responded to by Judge Robert Smith, judge of the probate and juvenile courts; Rev. Poole and Dr. Flemming Carrow, at one time chief of the Ophthalmological department of the University of Michigan.

G. A. SEYBOLD, Secretary.

LENAWEE COUNTY MEDICAL SOCIETY

The annual meeting of the Lenawee County Medical Society was held in Adrian, January 7, at which time the following officers were elected for the ensuing year:

President, A. W. Chase, Adrian.

Vice-president, I. L. Spaulding, Hudson.

Secretary and Treasurer, Geo. M. Lochner, Adrian.

Member Medicolegal Committee, L. G. North, Tecumseh.

Delegate to State Convention, W. B. Sprague, Palmyra.

Alternate, R. M Eccles, Blissfield.

Dr. W. H. Sawyer, president of the State Society was present and led the discussion of many interesting medical as well as surgical cases. The meeting then adjourned to the banquet hall. Dr. Whitney of Jasper was toastmaster and the following responded to the toasts assigned to them: "Confidence," Dr. W. H. Sawyer, Hillsdale; "Failures," Dr. Reuben Peterson, Ann Arbor; "The Doctor's Wife," Dr. A. W. Chase, Adrian; "Faith," Dr. J. A. Seibert, Adrian.

GEO. M. LOCHNER, Secretary.

SANILAC COUNTY MEDICAL SOCIETY

The eleventh annual meeting of Sanilac County Medical Society was held at Sandusky, Friday, December 27 at 1:30 p. m. The following officers were elected for the ensuing year:

President, G. S. Tweedie.

Vice-president, J. W. Weed.

Secretary and Treasurer, J. W. Scott.

Member Medicolegal Committee, D. D. McNaughton.

Delegate to Michigan State Medical Society, J. A. Fraser.

Alternate, J. W. Scott.

J. W. SCOTT, Secretary.

WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society held its regular meeting at the Medical Home on December 16. Dr. E. W. Haass presided. Dr. R. L. Clark, secretary. Dr. R. H Stevens read a paper on

Isotonic Sea Water in Therapeutics

Dr. Rene Quinton, assistant in the laboratory of pathological physiology in the College of France, advanced the idea of the use in therapeutics of sea water isotonic with the blood. This method was evolved after twenty years' study and experimentation in the Marine Biological Station at Arachnon, France, and in the physiological laboratory mentioned. Dr. Quinton traced the development of original animal cell from its birth in the sea to more complex organisms of the higher animals. He showed that the plasma or "vital medium," as he calls it, of the animal organism throughout the zoological series, with but few exceptions, is chemically and physiologically almost, if not absolutely, identical with the sea water of the ancient seas, the proportion of salts in which were 8.5 per 1,000 of water in place of 35 per 1,000 as found in the modern sea. The "vital medium" or entire plasma then of the complicated higher animal organism is the ancient marine medium which composed the original animal cell and was responsible for its proper functioning.

Dogs almost completely exsanguinated, after injection with isotonic sea water recover their strength rapidly and all their lost hemoglobin in five days.

White blood-corpuscles from all classes of vertebrates live an apparently normal existence in isotonic sea water.

Many dispensaries have been established in Paris and neighboring cities for giving sea-water treatment exclusively. Babies suffering from gastro-enteritis and marasmus promptly recover under subcutaneous injections of 30 to 75 c.c. of isotonic sea water every few hours.

It is also used extensively as an adjuvant or alone in many skin diseases, including lupus and syphilis, anemia, tuberculosis, etc., in any form of malnutrition. The author reported cases from his private practice in which he has been using isotonic sea water during the past three years. There were successes and failures.

He concluded that as an adjuvant at least to improve conditions of malnutrition it was of much value, while in some cases it appeared to accomplish what no other treatment would. It is deserving of more general recognition and investigation.

Dr. Aaron has tried sea water in his practice, and believes it a marvelous tonic to the nervous system. Patients suffering from nervous dyspepsia of obscure origin are greatly

helped by the injection of sea water. Some failures have also been encountered. Sea water is almost a specific in gastro-enteritis in children.

Drs. Hickey, Haass, Crane of Kalamazoo and Hitchcock continued the discussion. Dr. Stevens closed the discussion.

Dr. R. J. Sadowski presented a paper on

Sciatica

This is a subject of considerable practical importance, because of the frequency of the disease and severity of the pain. Pressure on some part of the nerve is considered as a frequent cause of sciatic neuritis. Bony thickening at the notch, syphilitic deposits, etc., may cause it. Lead poison may cause it among the poisons. The wearing of a belt may be a prolific cause of sciatica. This may be the reason that women and children are not so subject to this disease. Another cause often overlooked is flat foot. An abdominal support and the correction of the diet are the mainstay in the treatment.

Dr. Hitchcock recalled the efficacy of large doses of atropin in the treatment of sciatica. The doses must be heroic to be effective.

Dr. Hislop advocated the dilatation of the rectal sphincter in cases of sciatica.

Dr. Blaine thinks sciatica hardly exists as a disease, but simply as a symptom. Many cases are due to injury. The cure is often non-medical.

Dr. Crane has found sciatica associated with cancer. After cancer of the breast, if the patient lives long enough, there is a tendency to metastases to the bone, often into the spine, and may cause sciatica, single or double.

Dr. Carstens used to see sciatica due to malaria.

Dr. Ladowski closed the discussion.

The Auditing Committee presented a statement showing the cost of conducting the society for the past two years, from which an estimate was made for the next year.

It appeared that $2,600 would be available at present in dues to meet a probable budget of $4,000. which would mean a deficit of $1,400. It was therefore recommended to increase the dues sufficiently to meet this condition.

Dr. Thaddeus Walker moved the adoption of the following: Amend Chapter VI of the by-laws to read as follows: "Funds and Expenses. The fiscal year of this Society shall begin January 1. The annual dues for each active member shall be eight dollars ($8), for each resident associate member, five dollars ($5), and for each non-resident associate member three dollars ($3). Three dollars of such dues received from active members shall be forwarded by the treasurer, from time to time as collected, to the secretary of the State Society, which includes one dollar for the Medical Legal Bureau of the State Society. New members elected during the first quarter of the fiscal year shall pay dues for the year, during the second quarter for three-fourths of the year, and so on, the proportionate amount to be forwarded to the State Society and Medical Legal Bureau, as above ordered. No application for membership shall be acted on by the Board of Directors until dues for the fiscal year have been paid.

"All dues are payable in advance, and any member in arrears at the close of the fiscal year, after due notification, shall be held suspended in this Society, but shall be reinstated on payment of arrears. No member in arrears after April 1 shall be entitled to defense while in arrears."

Dr. Longyear seconded this motion, with discussion by Drs. Hislop, Aaron, Hitchcock and E. B. Smith. It was unanimously carried.

The several other amendments to the constitution and by-laws already published, whereby the office of secretary-treasurer was divided in two, making a secretary and a treasurer, was carried.

The president thereon appointed Dr. F. B. Tibbals as treasurer until the next election, to whom all dues, subscriptions and other moneys payable to the Society should be paid.

The opening meeting of the Wayne County Medical Society for 1913 was held Monday evening, January 6. Dr. E. W. Haass acted as chairman, and Dr. R. L. Clark secretary. The paper of the evening was by Dr. P. M. Hickey, who presented some selected cases of Roentgen examination of the stomach. The paper was illustrated by lantern slides. The paper was discussed by Drs. Sanderson and J. W. Vaughan, J. E. Davis, Charles D. Aaron, F. B. Walker. Dr. Hickey closed the discussion.

The following were elected to membership: Drs. Burton Hodges, J. Linton Harkness, C. P. Sibley and Carey Pratt McCord.

Donations

The thanks of the Society were extended to the following persons for donations: Dr. J. M. Cooper, five bound volumes; Drs. Sherrill & Simpson, eighty-six bound volumes; Mrs. W. A. McLean, forty-seven bound volumes; Dr. Sherrill, fifty bound volumes; Dr. A. Lappner, five bound volumes; Dr. W. M. Donald, unbound files; Dr. W. P. Manton, twenty-nine bound volumes, unbound files; University of Michigan, nineteen bound volumes, unbound files; Dr. W. R. O'Dell, eighteen bound volumes, unbound files; Dr. J. H. Carstens, unbound files; Miss Cleland, Dr. H. A. Cleland's picture; Dr. B. P. Brodie, old musical instruments.

IN MEMORIAM

Dr. W. E. Moon of Traverse City, Mich., died December, 1912. He was formerly a member of the Michigan State Medical Society.

Dr. C. C. Miller of Detroit, Mich., a graduate of the Hahnemann Medical College and Hospital in 1868, died recently.

Dr. O. S. Bailey of Lansing, Mich., died in December. He was a graduate of the University of Michigan in 1882, and a member of the Michigan State Medical Society.

Dr. V. J. Willey, formerly director of *x*-ray department in the University of Michigan, died recently, at Kalamazoo. He graduated from the University of Michigan in 1909.

NEWS

Dr. Wilfrid Haughey of Battle Creek has been elected Editor of the Phi Beta Pi Quarterly.

Dr. Fred H. Cole announces the limitation of his practice to Genito-Urinary Diseases and Cystoscopy, 270 Woodward Ave., Detroit.

Dr. R. C. Stone of Battle Creek is expected home from a nine months' stay in Europe at the various clinics about February first. He will devote his whole time to surgery.

Dr. William A. Spitzley announces that he has returned from Europe and has resumed his practice, limited to general surgery and consultations, with his office in the Shurly Building, Detroit.

Dr. F. B. Marshall, of Muskegon, was injured December 26, by falling from his buggy, sustaining a fracture of the neck of the right femur. Dr. Marshall is at Hackley Hospital and resting comfortably.

The Federation of State Medical Boards will hold its annual meeting at the Congress hotel Chicago on Tuesday, Feb. 25, 1913. The officers of the Federation are Arthur B. Brown, M.D., president, New Orleans; George H. Matson, M.D., secretary-treasurer, Columbus (State House), Ohio; James A. Duncan, M.D., chairman executive committee, Toledo.

Dr. A. O. Speckhard and family, formerly of Kawkawlin, Bay Co., accompanied by Miss Petronella Simon, sailed January 4 for Genoa, Italy. Will spend some time in traveling through Italy and Switzerland and will attend the clinics in Berlin. They expect to be gone about six months. On his return Dr. Speckhard will resume his practice in Bay City, Mich.

BLOOD-CULTURES IN SINUS THROMBOSIS

Blood-culture in cases of sinus thrombosis is frequently positive, and where it is positive it makes the diagnosis perfectly certain. Negative blood-culture, while not excluding sinus thrombosis, would be expected in cases of brain abscess.—E. B. Dench, in *The Therapeutic Gazette.*

Lacking any known specific or remedy for leprosy so far, sanitarians are agreed that the only hope of stamping out the scourge lies in the rigorous and expensive measure of permanently isolating those afflicted with the disease, thereby removing in each leper a constantly acting focus of infection.—Hurley, *Military Surgeon.*

MISCELLANY

CHRISTMAS

[Read by the author, Dr. J. D. Dunlop, before the Alpena County Medical Society, Dec. 19, 1912.]

The Christmas spirit's aie sae bonnie
We its greetin's o' eaeh ehiel and cronie,
It loosens e'en auld Tight-skin's money,
  And brings a smile
Tae every lass and blithesome sonnie
  That's aie worth while.

Auld folk and young a' meet together
Regardless o' the time or weather,
Some eraek o' days amang the heather,
  While ithers join
In Scottish songs anee sang by miether
  In auld lang syne.

The unka guid tae kirk may wander
And pet their thoughts tae things up yonder,
While ithers o' the airth aie fonder,
  Grow glib wi' wine
And eat tae rip their belts asunder
  Like ony swine.

But the greater part o' human kind
Who gifted we the proper mind,
Mak' a' their troubles get behind
  On New Year's Day,
And try we honesty tae find
  A better way.

A better way tae spend their days
Than trifling wi' some modern craze
Or taking part in dubious ways
  Or foolish strife,
Tae bask awhile in gilded ways,
  Then lose their life.

Sae then, my friends, a' here the night,
Where a' is bonnie, blythe and bright,
Remember, time is on its flight
  And age, not fame,
Will meet us in unequal fight
  And win the game.

But that's na reason we should frown
Or keep exuberant speerits down,
Let's set our neighbors in this town
  A good example,
Nor ever act like fool or elown,
  But be a sample
Of all that's lofty; high of mind,
Take deepest interest in the kind
O' daily troubles that we find
  Right here about us;
Be tae the front, and not behind,
  Though some may doubt us.

Our mission, we the doctor folk,
Is aie tae lift the heavy yoke
That threatens tae bear down or choke
  Our fellow mortals,
Sae let us power and strength invoke
  Through heaven's portals.

And when our final eall eomes in
Our faith in God is sure tae win,
A plaee o' rest among our kin,
  Lang syne departed,
Wha left us in this world o' sin
  Maist broken hearted.

Sae a' my friends about this table,
I'm sure you'll dae the best ye'r able
Tae lift some burden fra the feeble
  In this Yule Tide;
And may ye'r hearts forgive this seribble,
  But open wide.

And now, I'm done, I wish ye all
The blessings that tae man can fall
And when ye answer Gabriel's eall,
  May ye be ready
Tae grasp the hand o' old St. Paul
  And hou'd it steady.

THE DOCTOR

[Read by Dr. S. T. Bell of Alpena at the meeting of the Alpena County Medical Society, Dec. 19, 1912.]

Who stands alert and nobly by
And hears our first world-entering ery,
And marks the mother's grateful sigh?
  The Doetor.

And who intuitively knows
To diagnose and still the woes
That infants can't in speeeh disclose?
  The Doetor.

Who helps us in our wayward youth
Along the path of health and truth
And meets our ills with gentle ruth
  The Doetor.

Who is it chides away our fears
When fleeting manhood dulls our years,
And the grim specter close appears?
The Doctor.

And when at last Death claims his prize,
And still the souless body lies,
Who's there to close the lightless eyes?
The Doctor.

Semper paratus for the fight,
Who's always ready, day or night,
And strives to heal from dark to light?
The Doctor.

Who takes the telephone to bed,
Whene'er he rest his weary head,
So Duty's calls are swifter sped?
The Doctor.

Yet who's last to get his pay,
Who finds most patients seek delay
With promises that mean some day?
The Doctor.

And when his widow, old and frayed,
Sets out to learn what he has made,
She finds that everyone has paid
The Doctor.

SURGICAL SUGGESTIONS

American Journal of Surgery

The "safe triangle" or "interpleural space" for exposing the heart is at the left of the sternum behind the three lower costal attachments.

If one end of a needle projects superficially, by squeezing the muscles in the proper direction, from beneath its deeper end, it can often be driven through the skin and extracted without incision.

Unless a foreign body has been definitely localized at some distance from the point of entry, this, when known, should be included in the incision for removal, marking this spot for further reference by a little nick in the skin.

In the digits the dissection for a foreign body should be confined, if possible, to a quadrant bounded by the tendons in the median line and the vessels and nerve on each side.

A biliary fistula with patent cystic and common ducts may be used as a means of introducing medicaments or fluids into the bile tract or upper bowel.

When confronted by an irregular rounded growth appearing to spring from the sternomastoid in the middle third of the neck, bear in mind the possibility of a carotid gland tumor.

Ligation in continuity of the external carotid should not be close to its origin. The proximal clot may extend into the common, and be swept through the internal carotid, to the brain.

A small erosion of the trachea may give rise to an hemoptysis, which must be distinguished from a lung hemorrhage by the absence of pulmonary and constitutional symptoms and by the fact that the blood is in small clotted lumps.

In removing a foreign body from a joint none but an uncontaminated gloved finger should be permitted in the wound, and that no more than is necessary.

Ichthyol is helpful in the treatment of chronic non-suppurating paronychia. The underlying cause of the affection must be sought—syphilis, eczema, or favus of the nail, the use of caustic alkalies on the hand, etc.

Hemolysis tests are desirable before selecting a donor for transfusion, but if the case is of great emergency this may be dispensed with, since hemolysis is unlikely if the donor is free from malignant growth and tuberculosis. Syphilitic taint must of course be excluded.

Splinters of hard wood, like pieces of glass, may become encysted in the tissues, and can often be drawn out whole by one end. But soft wood, and especially old wood, breaks on traction, and unless the wound is made large enough to expose it all, even very large fragments may be left, unrecognized, in the tissues.

In the management of pertussis, it cannot be too frequently emphasized that hygienic, tonic, dietetic, hydropathic and out-door treatment are of more importance than the exhibition of drugs.

POSTOPERATIVE INTESTINAL OBSTRUCTION

Cases of intestinal obstruction following appendicitis operations are most perplexing and disturbing, yet their prompt recognition is absolutely necessary to save the patient. They may be roughly divided into three classes: 1. In the early days after the operation there may persist a paralytic ileus due to sepsis from peritonitis or the ileus may be due to the pressure of an abscess or to the handling at the operation. This paralytic ileus may become changed into a mechanical one consequent on adhesions. 2. Obstruction may be caused by pressure of tubes or dressings. This is relieved by withdrawing the tube. 3. Late obstruction due to organized adhesions. Kinks are produced or bands which lead to strangulation ileus.—C. A. McWilliams, *New York State Journal of Medicine.*

RAIN ON THE GLASS

Frequent source of trouble to drivers of cars with fixed wind screens is the collection of rain on the glass in small globules, which are very detrimental to the vision, and, in consequence, necessitate frequent stoppages for the purpose of cleaning the glass. An effective method of preventing this is to carry a bottle of kerosene and glycerine, mixed in equal quantities, and, on the commencement of rain, to rub a few drops of this over the surface of the screen. The rain will then spread over the glass in a thin sheet, enabling the drive to be continued in comfort.—*Motor Print.*

HELPFUL INTERVIEWS

It is astonishing what an amount of benefit a patient, who is suffering from apparently a pronounced disorder, may derive from one or two frank interviews with a physician sufficiently aware of the springs of human conduct, quick to see where the shoe pinches, and willing to help the patient to deal frankly with the real sources of his troubles.—C. M. Campbell, *New York State Jour. of Medicine.*

There is a tendency to discourage patients with pellagra, and to such an extent that in the popular mind pellagra is classed with plague. This should stop. Bad cases of pellagra die, so do bad cases of measles; ordinary cases of both get well. The patient should be told this. —Dyer, *N. O. Medical and Surgical Journal.*

NEW AND NONOFFICIAL REMEDIES

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

CYCLOFORM, isobutyl para-aminobenzoate, is 2-methyl-propyl-4-amino-benzoate, $C_6H_4(NH_2)COO.CH_2.CH(CH_3).CH_3$. It is closely related to anesthesin (ethyl aminobenzoate) and propaesin (propyl aminobenzoate). It is an odorless, crystalline powder, soluble in olive oil and only slightly soluble in water. Said to act on wound surfaces or mucous membranes as a superficial and prolonged anesthetic and as a mild antiseptic. Used as a dusting powder, 5 to 20 per cent. ointments, in suppositories and internally in doses of 0.1 Gm. to 0.2 Gm. (1½ to 3 grains). Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Dec. 14, 1912, p. 2150).

Calcium glycerophosphate is monohydrated normal calcium glycerophosphate $Ca(CH_2OH.CHOH.CH_2)PO_4.H_2O$, containing 90 per cent. of anhydrous salt. It is a white powder, almost tasteless, slightly soluble in water, easily soluble in dilute acids. Glycerophosphates were introduced as "nerve foods" on the belief that the phosphorus was in a readily assimilable form. Recent animal experiments indicate that glycerophosphates possess no advantage over inorganic phosphates in phosphorus metabolism. Dose 0.2 to 0.65 Gm. in powders, wafers, capsules or tablets suspended in water or syrup, or dissolved by the addition of sufficient citric acid or diluted hydrochloric acid.

Calcium glycerophosphate, Monsanto, is a non-proprietary article and complies with the tests laid down for calcium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

Slee's Refined and Concentrated Diphtheria Antitoxin is prepared according to Banzhaf's method. Supplied in packages containing 1,000, 2,000, 3,000, 4,000 and 5,000 units, in vials and also in syringes. The Abbott Alkaloidal Co., Chicago, Ill. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

THE TRUTH ABOUT MEDICINES

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

Exophthalmic Goiter and Suggestion.—Throughout the ages the suggestibility of patients suffering from exophthalmic goiter has made them favorite subjects for all sorts of therapeutic experiments. In the older history of medicine much is said about goitrous conditions which could be cured by various methods such as the wrapping of a dead snake around the neck, or the touch of a rope by which a man had been hanged. In more recent years thyroid, thymus, parathyroid, serum from thyroidectomized animals and other substances were at first thought of value but later found unavailing. Recently a series of cases of hyperthyroidism have been reported in which various operations on the nose and throat have brought great relief of symptoms (*Jour. A. M. A.*, Dec. 14, 1912, p. 2154).

Friedmann's Treatment for Tuberculosis.—This method of treatment does not appear to be based on any new principle. It represents merely another effort to utilize for curative and preventive purposes the antigenic substances in the tubercle bacillus. This effect is secured, so it is said, with living bacilli, devoid of virulence and invasiveness, injected intramuscularly. Then bacilli are said to be derived from the turtle, but the method by which they are deprived of virulence is withheld. In view of the probably false hopes aroused, the newspaper notoriety which this essentially secret treatment is receiving is to be regretted (*Jour. A. M. A.*, Dec. 14, 1912, pp. 2158 and 2159).

Baume Analgesique Bengué.—In Great Britain it is advertised to the public. In this country the exploiters find that the space in cheap medical journals is a cheaper method of getting the stuff to the public. Analysis indicated menthol 18 per cent., methylsalicylate 20 per cent., lanolin, anhydrous, 54 per cent., and a fat, apparently lard, 8 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

The Evolution of a Proprietary.—As a general proposition, medicinal compounds are not born but evolved and often the proprietary and the official preparation may be based one on the other, while both are usually based on some preparation which antedates them. Lysol, the equivalent of which—liquor cresolis compositus—is official in the United States Pharmacopeia, is a good example of the way in which manufacturers appropriate the discoveries of others, develop them and turn them to proprietary use. A study of the history of lysol shows that the use of soap as a means of making cresol soluble in water was gradually brought out and merely appropriated by the exploiters of lysol (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

Jireh Diabetic Food.—This is one of many vicious products on the American market that contain practically as much starch as ordinary flour but are sold under misleading claims as safe products for diabetics. Jireh flour was found to contain 73.02 per cent. carbohydrates, while ordinary wheat flour contains about 75 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2174).

Lymph Injections in Chronic Parenchymatous Nephritis.—In a case of chronic parenchymatous nephritis while the patient appears well and to enjoy the best of health, the use of lymph injections of the Animal Therapy Company, Chicago, is not advised. The administration of a remedy which might do harm should be undertaken only under the clearest indications. If the remedy contains as claimed a mixture of foreign protein it might easily injure a diseased kidney (*Jour. A. M. A.*, Dec. 14, 1912, p. 2176).

Aspirin and Acetylsalicylic Acid.—Depending on the peculiarity of the patient both aspirin and acetylsalicylic acid produce gastric disturbances which are not uncommon. Linke found acetylsalicylic acid, von Heyden, to be the equal of aspirin, both chemically and therapeutically (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

The German Council on Pharmacy and Chemistry.—The committee appointed by the Congress for Internal Medicine—the German Council on Pharmacy and Chemistry—now consists of Penzoldt, Gottlieb, W. Heubner, G.

Klemperer, A. Schmidt, and Spatz, nearly all editors as well as internists. The secretary of the A. M. A. Council on Pharmacy and Chemistry has been appointed a consulting member. The organized medical press has agreed to submit all advertisements to critical inspection before accepting them (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

What's Wrong.—Quoting figures from a recent census bureau bulletin, the *Medical Standard* claims that the consumption of "patent medicines" is increasing in this country and suggests that, "possibly there is something wrong with us" (the medical profession). While the amount of patent medicines manufactured in this country during recent years may have increased, the consumption by the people of the United States has diminished greatly. Lessened home consumption has driven the American patent medicine manufacturer to seek foreign markets and this explains the increased production. But there is something wrong with us, namely, the pernicious habit of prescribing proprietary mixtures, for the public is awakening to the fact that there is little difference between an "ethical proprietary" and a "patent medicine." A further something that is "wrong with us" is our easy going tolerance which makes possible the existence of such publications as the *Medical Standard* (*Jour. A. M. A.*, Dec. 21, 1912, p. 2264).

Quacks Run Out of Kentucky.—Recently a concern styling itself variously the "Advanced Medical Science Institute," "Radio-Electric Company," "Witman Medical Company" and "Delish-Etts Company" with an alleged capital stock for each of these concerns of from $25,000 to $2,000,000 and claiming to be a part of the State Land Company of Oklahoma, with branches in a dozen or more states, began operations in one of the principal office buildings in Louisville, Ky. Flaming advertisements appeared in the newspapers telling of expert diagnosticians, scientific apparatus and numerous, miraculous cures. On investigation the State Board of Health of Kentucky found that the "expert diagnostician" was not a physician and that the only medical man was employed at a salary of fifteen dollars per week. The scientific apparatus consisted of a cheap fluoroscope by means of which it was claimed that gall-stones, lung and kidney lesions, etc., could be seen. Through the vigorous prosecution of the state board of health the promoters were fined and also forced to agree to cease their operations, at least so far as the state of Kentucky is concerned (*Jour. A. M. A.*, Dec. 21, 1912, p. 2273).

Commercial Haste Versus Scientific Conservatism.—An example of business haste was furnished by an announcement made April last at the International Congress on Tuberculosis. Countess von Linden and her co-workers read papers at the Congress describing a new remedy for tuberculosis, the result of work carried out under the advice and direction of the late Professor Finkler. The remedy was stated to be a combination of iodin with methylene-blue and a combination of copper with lecithin, which was to be put on the market by a German firm "as soon as possible." Professor Selter now reports that in experiments made by him no marked difference was observed between the treated and the control animals. His clinical trials also showed no decisive benefit from these remedies. Selter protested to Countess von Linden and her colleagues against the premature publicity which was contemplated, but without avail. In the published reports no mention of Selter's unfavorable results was made. No doubt the connection with a commercial concern is strong temptation to optimism in such research (*Jour. A. M. A.*, Dec. 28, 1912, p. 2319).

Demand Clean Advertising.—There are many medical journals which editorially rank high and for which a subscription price is charged that makes the carrying of advertisements for worthless proprietaries entirely unnecessary. For instance, there are the *Medical Record* and the *American Journal of Obstetrics* published by William Wood & Co., the *Annals of Surgery* (J. B. Lippincott Company) and the *American Journal of the Medical Sciences* (Lea and Febiger), each of which costs $5 per annum—sufficient to warrant a demand that the advertising pages be kept clean. While sporadic protests against the nostrum advertisements will be without avail a protest from a hundred subscribers to these journals, which are run merely as a financial venture, would quickly have the desired effect. That an advertising policy which rejects nostrum advertisements is not impossible of attainment in privately owned medical journals has been proven by three high grade publications, the *Cleveland Medical Journal*, the *Southern Medical Journal*, and *Surgery, Gynecology and Obstetrics* (*Jour. A. M. A.*, Jan. 4, 1913, p. 53).

FRAUDULENT ADVERTISING IN HIGH-CLASS MEDICAL JOURNALS.—It is the favorite retort of the publishers of some medical journals, when criticized for carrying advertisements of fraudulent proprietary remedies, that they are just as capable of determining what constitutes a fraudulent or worthless preparation as is the Council on Pharmacy and Chemistry. The absurdity of the contention is well illustrated by the appearance in the *Annals of Surgery*, which claims that its advertisements are submitted to, and passed on by, some of the most noted surgeons in the country, of an advertisement of Mothersill's Seasick Remedy, a rank patent medicine advertised under false claims (*Jour. A. M. A.*, Jan. 4, 1913, p. 57).

THE CONSTRUCTIVE WORK OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—During the first two or three years of its existence, a single phase of the work of the Council on Pharmacy and Chemistry—the exposure of the many worthless or fraudulent proprietary medicines foisted on the medical profession—attracted attention. The manufacture of a satisfactory brand of calcium glycerophosphate by the Monsanto Chemical Works is the direct result of the report of the Council on the poor quality of the calcium glycerophosphate on the American market. Vacules Cornutol represents a further improvement by the H. K. Mulford Co. in the reliability of their ergot preparations. Experiments having shown that the deterioration of ergot preparations is retarded when they are kept away from air, the firm now offers its cornutol in sealed containers from which the air has been removed (*Jour. A. M. A.*, Jan. 4, 1913, p. 58).

MICAJAH'S UTERINE WAFERS.—This nostrum was analyzed in the A. M. A. Chemical Laboratory and found to consist essentially of burnt alum, boric acid and borax. These are the "well-known, approved and time-tried antiseptics, astringent and alterative medicaments" for which Micajah & Co. claim so much. That a mixture of borax and alum may be of value in some cases can easily be granted. To say, however, that such medicaments will quickly and permanently cure gonorrhea, urethritis, endometritis, etc., is foolish, false and vicious. In spite of the fact that the medical profession has been apprised of the fraud and deceit connected with its exploitation, this preparation is still advertised in several medical journals. Some of these are *Medical Record*, *Therapeutic Gazette*, *Medical Times*, *New York Medical Journal*, *American Journal of Surgery* and *Interstate Medical Journal* (*Jour. A. M. A.*, Jan. 4, 1913, p. 65).

RHEUMATICIDE. — The so-called Wallace Treatment for Rheumatism is marketed by the Rheumaticide Company of New York City. It is claimed that it cures gout, lumbago, sciatica and rheumatism. Rheumaticide is for hypodermic use and is supposed to be administered by a physician. Examination in the A. M. A. Chemical Laboratory indicated that the essential constituents were uncombined iodin and iodo-phenol with traces of hydriodic acid. A preparation obtained by mixing the following was found, after standing twenty-four hours, to have properties quite similar to those of Rheumaticide: carbolic acid 2 parts, glycerin 4 parts and iodin 4 parts. And yet the exploiters call it a "serum" and inveigh against the use of drugs in this disease! (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

KOSINE.—Kosine, Kosine Company, Washington, D. C., is sold as a cure for epilepsy. According to an analysis by the New Hampshire State Board of Health it contains antipyrin 0.64 per cent., ammonium bromid 4.97 per cent. and sodium bromid 2.4 per cent., and thus has a composition similar to that of many other "epilepsy cures" (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

BOOK NOTICES

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Articles by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D. Volume 4. 22d Series. 1912. New York and London: J. P. Lippincott Co. $2.

Space forbids us to even enumerate the many excellent articles in this number. The illustrated article by Curtis C. Eves on "Enucleation of the Tonsils, and Removal of Adenoids, and Lingual Tonsils by Simple Methods" is especially interesting, although no new method is suggested.

Under the head of Medical Economics is a beautifully illustrated article on the Rockefeller Institute for Medical Research, by John Auer, S.B., M.D. This institute is enjoying especial attention at present on account of the work conducted there by Alexis Carrel,

who has just recently been honored with the Nobel prize.

Among other particularly interesting articles are "The Treatment of Diabetes," by H. B. Anderson, "The Treatment of Exophthalmic Goiter," by Albert Abrams, "Weak Feet," by Irving Steinhardt, a biography of Benjamin Rush by Thomas W. Harvey. Dr. J. H. Carstens of Detroit has an article an the "Use of the Stem Pessary."

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, assisted by Leighton F. Appleman. Dec. 1, 1912. Lea & Febiger, Philadelphia. $6 per annum.

The present number of the Quarterly treats of diseases of the digestive tract and allied organs, the liver, pancreas, and peritoneum; diseases of the kidneys, genito-urinary diseases, surgery of the extremities, shock, anesthesia, infections, fractures and dislocations, tumors, with a practical therapeutic referendum. Advances in these various branches are carefully and faithfully portrayed. To outline them all is impossible. Suffice to say this volume maintains the same high standard of all its predecessors.

PATHFINDERS IN MEDICINE. By Victor Robinson. Medical Review of Reviews. New York, 1912. Price, $2.50, postpaid.

In his inimitable style, Victor Robinson gives us a study of the life and work of Galin, Paracelsus, Aretacus, Cervitis, Vasalius, Paré, Scheele, Hunter, Jenner, Laennec, Simpson, Semmelweis, Schleiden, Schwann and Darwin. A picture of each is given, the best that can be found. The Semmelweis monument in Budapest, is illustrated in colors. All students of medical history will be especially pleased with this contribution, which will take high rank.

PRINCIPLES OF HYGIENE. For Students, Physicians and Health Officers. By D. Bergey, M.D., First Assistant, Laboratory of Hygiene, and Assistant Professor of Bacteriology, University of Pennsylvania. Fourth Edition, Thoroughly Revised. Octavo of 529 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $3 net.

With the constantly increasing percentage of the physician's work devoted to sanitary science, hygiene, and the prevention rather than the cure of diseases, and with the great probability that this condition will increase, any authoritative work on hygiene is welcome. Dr. Bergey has a very complete text, going into the most minute detail and ramifications of the subject, well illustrated, and of course well printed, coming from the Saunders Press.

The chapter devoted to Quarantine, gives the quarantine laws of the United States in full, and interstate quarantine regulations. To have this subject only in such accessible form is worth many times the price of the book, especially to physicians dealing with contagious diseases.

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M.D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. Octavo, 301 pages, illustrated. Cloth, $3.25 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

As an author Dr. Simon is well known to the medical student and graduate. In this present work he has presented in his usual happy and compelling way the important developments of recent years in Laboratory methods, in their relation to infection and immunity.

The book is well illustrated and readable. The consideration devoted to treatment of disease by use of serum therapy, vaccination, etc., is comprehensive and valuable. We unhesitatingly recommend the book.

PRACTICE OF OBSTETRICS. Designed for the Use of Students and Practitioners of Medicine. By J. Clifton Edgar, Professor of Obstetries and Clinical Midwifery in the Cornell University Medical College; Visiting Obstetrician to Bellevue Hospital, New York City; Surgeon to the Manhattan Maternity and Dispensary; Consulting Obstetrician to the New York Maternity and Jewish Maternity Hospitals. Fourth Edition, Revised Twenty-Second Thousand. With 1,316 illustrations, including five colored plates, and 36 figures printed in colors. Philadelphia: P. Blakiston's Sons & Co., 1012 Walnut Street, 1913. The price of this book is $6 net.

On glancing through this fourth edition, one is immediately struck with the thoroughness of the work and manner of its compilation.

Not having examined the previous editions, no attempt will be made in this review to draw comparisons or point improvements or additions. All this has been done in the preface, of the several editions reproduced in this book.

Ovulation, impregnation, growth and development of the fetus are closely followed by complete descriptions of the changes, physio-

logical and pathological, in the mother, both uterine and corporal. The hygiene of pregnancy closely follows. This classification in the sequence of their occurrence is a feature of the work, that will aid in studying references.

The classification of monstrosities and deformities of the fetus, with illustrations, is placed near diseases of the genital and urinary organs, and followed by toxemia of pregnancy, eclampsia, vomiting and diseases of the nervous, circulatory system, skin, etc. The chapter on Pelvimetry is exceptionally clear, beautifully illustrated and comprehensive.

The expelling forces of labor, the elements that enter into the mechanism, the difficulties, the various presentations, the managements of the various stages in normal and faulty position are painly described and carefully illustrated. Pathological labor, dystocia, due to abnormal conditions of the fetus, or the mother are fully described and illustrated in part five of the work.

Much attention is given to the puerperium, both physiological and pathological. Simple disturbances are noted as well as severe infections—nothing is overlooked.

Parts eight and nine are devoted to the care of the newly-born, ligating of the cord, care of the eyes, watching of stools, asphyxiation, diarrhea, hemorrhages, feeding, convulsions, syphilitic conditions.

Under Surgery of Obstetrics is described tamponage, irrigation, induction of premature labor, manual and instrumental dilatation of cervix, manual and instrumental delivery, all cutting operations, with a section on cesarean section, which operation the reviewer is pleased to note is constantly attracting more and more attention among obstetricians and advanced thinkers.

Momburg's Belt Constriction closes the work, but an appendix, with a list of useful records and charts, is added. The book abounds in useful information, is fully up to date, practical and scientific; one of the complete and thorough works that it is a satisfaction to find in the library.

SURGERY AND DISEASES OF THE MOUTH AND JAWS. By Vilray Papin Blair, A.M., M.D., Professor of Oral Surgery in the Washington University Dental School, and Associate in Surgery in the Washington University Medical School. With 384 illustrations. St. Louis: C. V. Mosby Co., 1912. Price, $5.

Dr. Blair presents us with one of the best books on this specialty yet produced. He has a pleasant style, not too verbose, but giving a full and clear description of the subject in hand. The author draws largely from others, as well as his own experiences, not hesitating to give credit where it is due to other workers. The illustrations are excellent and the text complete.

The scope of the work is surprising, including detailed description of general principles, such as examinations, inflammation, tumors, etc., preparation of hands, etc., hemorrhage, shock, and other complications, wounds and injuries, fractures, dislocations, congenital facial, palate and lip clefts and their treatment. Much space is devoted to this subject and the various operations for relief of these clefts are clearly described and well illustrated.

Other chapters deal with obturators, artificial vela, speech training, repair of artificial defects of lips, cheeks and palate, ideal occlusion and malocclusion of the teeth, etc., through fifty-four chapters.

We notice that in treatment of malignant diseases after operation, Coley's toxins are recommended for several months. The *x*-ray is recommended in superficial malignant diseases, but a question is raised as to its benefit in deep-seated cancers.

The book is worthy of wide distribution and careful study, especially among orthodentists and oral surgeons.

DISEASES OF CHILDREN. A Practical Treatise on Diagnosis and Treatment for the Use of Students and Practitioners of Medicine. By Benjamin Knox Rachford, Professor of Diseases of Children, Ohio-Miami Medical College, Department of Medicine of the University of Cincinnati; Pediatrician to the Cincinnati Hospital, Good Samaritan Hospital and Jewish Hospital; Ex-President of the American Pediatric Society and Member of the Association of American Physicians. New York and London: D. Appleton & Co., 1912. Price, $5.

This is among the many books of children's diseases that are worthy of, and will undoubtedly occupy, a high place in the professional mind. While written largely from the standpoint of the institutional doctor, it nevertheless covers the field of private practice very satisfactorily. The chapter on Infantile Scurvy (Scorbutus), so clear, so plain and so truthful to life withal, describing the condition as it actually exists, its causes, symptoms, pathology and treatment in such lucid manner, must prove an exceptionally valuble feature to any, if such there be, who are still unalert to the presence of this disease among

our little ones. The advocacy of large doses of antitoxin for diphtheria, is a decided relief to a long-suffering profession. Every general practitioner in the land should hail with joy the outspoken endorsement of authorities on this subject. One could expect, however, that any author so frank on most points would exhibit a similar courage in treating the important subject of antitoxin anaphylaxis.

The chapter on diseases of the blood and ductless glands is exceedingly valuable. It covers anemia, leukemia, chlorosis, purpura, hemophilia, Hodgkin's disease and simple adenitis. Chapter seventy is the best exposition of status lymphaticus the reviewer has ever seen in a medical text-book (and having witnessed a death by chloroform some years ago, because of this condition, as revealed by post-mortem, he has examined many). This chapter alone is worth many times the price of the book, as it will materially aid in recognizing this obscure, unfortunate, critical, I may say, dangerous condition.

In closing, the author has thrown much light on a number of common conditions, as furunculosis, erythema, ichthyosis, impetigo contagiosa, pemphigus, scabies and pediculosis capitis, which lend a decided interest as well as charm to the work.

The Practical Medicine Series. Comprising ten Volumes of the Year's Progress in Medicine and Surgery Under the General Editorial Charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D. Series 1912. Chicago: The Year Book Publishers. Set, $10; volume, $1.25.

The real value of these books is to be found in the editorial remarks following each new idea considered, as instanced in Volume V, Obstetrics, page 130; editor's remarks and caution on the Momburg treatment for post-partum hemorrhage, the use of the tracheal catheter in asphyxia neonatorum, perineal stitches, etc. As has been repeatedly said the discussion of the new things brought out during the year is the great feature of these year books. In this one the reviews of eclampsia—especially anaphylaxis between mother and child in pregnancy—is illuminating as showing the present thought among obstetricians.

Those wishing to keep pace with the progress of internal medicine during 1912, can go a long way toward acomplishing that end by investing $1.50 in Volume VI of the year book by Billings and Salisbury. Diseases of the ailmentary tract occupy most of the space in this book, as indeed they do in the human subject.

Esophagoscopy and gastroscopy have received extensive consideration and illustration.

Food in Health and Disease. By Nathan S. Davis, Jr., A.M., M.D., Professor of the Principles and Practice of Medicine in Northwestern University Medical School; Physician to St. Luke's Hospital, Mercy Hospital and Wesley Hospital, Chicago; Member American Medical Association, American Climatological Society, etc. Second Edition. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Price, $3.50 net.

A scientific treatise on foods in general, carefully describing proteins, fats and oils, and carbohydrates, their distribution in foodstuffs, their proportion and value. Animal and vegetable foods are treated separately and at length. Diet in health closes the part first of the book. Much good advice on diet is given for the different periods of life. Caution against overeating is sounded and reasons made plain.

The great interest, however, is found in part second, which treats on diet of the sick. This is not handled in a general way, but each disease or affection from typhoid fever to urticaria is handled separately, and methods of preparation and of administration of the articles suitable for each are described. Blood-troubles and disorders of nutrition receive special attention.

BOOKS RECEIVED

Swamp Fever in Horses. By L. VanEs, E. D. Harris, and A. F. Schalk. Bulletin 94. North Dakota Agricultural Experiment Station. Department of Veterinary Science.

Sanidad y Beneficencia. Boletin Oficial de la Secretaria, Publigacion Mensual. Tomo VIII, Habana, Julio-Agosto-Septiembre, 1912. Nums. 1-2-3.

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Vol. XII GRAND RAPIDS, MICHIGAN, MARCH, 1913 No. 3

Original Articles

SOCIAL LEGISLATION AND THE DOCTOR *

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"The task of the postponement of death for a few years for all of us, and for all of our friends, and the remainder of the people, and of increasing the vitality, happiness and soundness of all, of procuring the utmost possible immunity from disease and its interruptions, is a task well worth the consideration of statesmen."[1]

In approaching the subject of social legislation, permit me to remind you that legislation of this nature is not of purely modern development. You will find in the Book of Leviticus that the old Jewish law, in no uncertain words, ordered a quarantine of the plague-infected; purification by destruction of plague-infected houses; possessed a Pure Food Law; and had divers other health-promoting laws, some of which must have given rise to the modern cry of "Interference with the liberty of the individual."

The utilization of governmental function for the protection of the health of its people found expression in Rome as early as 3 B. C. At this time Rome had a system of sanitation and sanitary engineering which was not only the equal, but indeed the superior of many of our modern cities. According to Mommsen, "The city was divided into four police districts for the efficient repair of the net-work of drains by which Rome was pervaded; for the proper cleansing of streets; for the prevention of nuisances of ruined buildings; for the correction of foul smells; for the destruction of unsound goods, and the suppression of false weights and measures."

Theological opposition, the belief that pestilences were "inscrutable providences," not only permitted the ghastly pestilences of the intervening centuries, but so delayed progress that it is only in this Twentieth Century that we have attained the proficiency in sanitation and sanitary engineering of the old Romans.

THE BEGINNING OF MODERN SANITATION

In 1838, out of 77,000 paupers in London, 14,000 were suffering from fever. The annual death-rate for London was about 80 per 1,000. At this time, the man who may rightfully be termed "The Father of Modern Sanitary Science," Sir Edwin Chadwick, was secretary of the Poor Law Board. A particularly virulent epidemic broke out in White Chapel near a stagnant pool. Chadwick appointed three of the most prominent physicians as an investigating committee. As a result of this report, which pointed out the extent to which "shameless' water-supply contributed to the disease and death of the city, a great sensation was created. Commissions followed and here modern sanitary science under governmental control may be said to have had its beginning.

If you realize that in 1848 the pulpits of Scotland thundered their denunciations against Sir James Simpson, and his advocacy of the use of chloroform in child-birth, you will not be surprised at the opposition that Chadwick met. Driven out for a time in 1848, for overzeal, he returned and fought on for forty years. Even as late as 1888, so serious was the opposition to saving life by sanitation, so general the acceptance of the doctrine that "Pestilence is a great check to the growing excess of population," that he felt impelled to seriously answer his opponents in a speech in which he made the statement that "Pestilence is attended by a rapid augmentation of birth-rate and does not reduce population."

As civilization develops, as medical science advances, and with it a general appreciation of the causes and laws which govern disease, the public come to more completely and certainly realize that sickness, poverty, pestilence and early death, are less the result of an "Inscrutable Providence," than of the blind ignorance of the individual.

* President's Address, Kent County Medical Society.
1. Vrooman: The Arena, August, 1895.

They demand that the state shall step in, and in a kindly, paternal way regulate the lives of its people; that individual rights, individual tendencies may, indeed must, sometimes be sacrificed that community rights be preserved, is true, but all too often these claimed individual rights are the selfish, unreasoning claims of blind ignorance. No intelligent laymen would to-day claim that you had any more right to expose me to the infectious disease with which you are unfortunate enough to be infected, than you would have the right to put poison in my meat.

Bennington, in *Westminster Review,* August, 1909, says:

"Modern conditions cry aloud for State interference . . . In securing the right conditions for health, individuals have responsibilities as well as the State, but the State whilst performing its own duties, must enforce upon the individuals the performance of theirs. To leave this to private initiation and effort in the name of liberty, is to rely upon knowledge not possessed; will, wanting stimulus, and persons lacking power."

The European countries, and, in a lesser degree our own, have long seen the necessity of governmental control of sanitation of epidemics, the need for state alms-houses, of asylums for the insane and feeble-minded, of hospitals and sanatoriums — in short, though in a very moderate way, of the support of the weak by the strong.

Some of the European countries have, with their old age pension laws, their sick benefits and their workers' compensation acts, gone far. It remained, however, for England to produce the most far-reaching piece of social legislation ever promulgated. A legislative act, Utopian in its scheme, styled speculative by its critics, and admitted to be such by its sponsors, has in the last few months passed the British Parliament. In the words of the Chancellor, Sir Lloyd George, the passing of the bill will confer on millions of their fellow countrymen, by the joint operation of self help and state help, the greatest alleviation of the risks and sufferings of life that any Parliament has ever conferred on any people.

ENGLAND'S INSURANCE ACT

The National Insurance Act, a compulsory measure, has two great objects:

1. To insure against loss of health, and the prevention and cure of sickness.

2. Insurance against unemployment. For the purpose of this paper only part one will be considered.

Under this act every employed person (with some few exceptions) between the ages of 16 and 65, earning less than $800 per year, is compulsorily insured. That you may gain some idea of the extent of the workings of this act, let me say that about fifteen million people, one-third of the entire population of Great Britain, will be affected.

The funds are contributed by the worker, the employer and the state. In general, the rates are as follows:

	For Men Pence	For Women Pence
Worker	4	3
Employer	3	3
State	2	2

There is, however, a special class for the poorest workman.

	Without Board or Lodging		
	Under 1s. 6d.	Under 2s.6d.	Under 2s. 6d. Per Day
Worker	0	1	3
Employer	6	5	4
State	3	3	2

You will note that, in this the poorest class, the burden falls on the employer who profits by cheap labor.

In return for this most moderate premium the insurer is entitled to the following benefits:

1. Free medical treatment and attendance, including free medicine and surgical appliances.

2. Treatment for tuberculosis in sanatorium, not only for the worker but for his family. This is considered by Lloyd George to be one of the most important provisions in the bill. To support this Parliament agrees to give one pound for each pound the local authorities raise for the construction of sanatoria, and provide a one and one-half million pound fund ($7,500,000.00) for this purpose. From the general insurance fund, about one million pounds a year will be available for maintenance.

3. Sick pay: 10s. ($2.50 a week) for 26 weeks.

4. Maternity Benefits.

Provision is made that the women shall be paid 30s., if either she or her husband is insured. In addition, if she is a worker there is a sickness benefit for four weeks.

5. Disablement Benefits: 5s. per week for 26 weeks.

ADMINISTRATION OF ACT

The administration of the act is in the hands of:

1. Approved Societies. These approved societies are the lodges, fraternal orders, local clubs and trade unions, which in England, as in this country, have already established mutual insurance benefits in the interest of their members. In England about 900,000 workmen were enrolled. Under proper control, these societies will administer the sickness, maternity and disablement benefits. Those individuals who are not eligible to societies will be taken care of through the post-office.

The act provides that medical attendance shall be administered under the existing plan of "club

doctors," whereby the doctor looks after a definite number of workers for a definite sum per annum per worker. The original act provides a compensation of 4 s. 6 d. per annum.

2. The Local Health Committee. This will be essentially a lay committee, composed of representatives of the approved societies, of the county government, of the local medical societies and of the Insurance Commission. The local health committee has supervision over the medical and sanitarium benefits and the administration of public health.

The act has, almost from its inception, been bitterly fought by the medical men. The proposals of Lloyd George have met with bitter, acrid opposition from a united profession. Twenty-five thousand doctors have signed the following agreement:

"I will not enter into an agreement for the giving of medical attendance and treatment to persons insured under the bill, excepting as shall be satisfactory to the medical profession and in accordance with the declared policy of the British Medical Association."

To give you some idea of the bitterness of the controversy, let me quote from some of the letters sent to the British Medical Association *Journal*:

"Absurd and degrading regulations at starvation wages."

"The medical big-wigs must think us fools."

(This is probably a hit at Sir Clifford Allbutt and Sir Victor Horsley, who have supported the Act. At one time the latter was hissed by two-thousand of his brethren.)

"We could scarcely call our souls our own under such degrading, bureaucratic demands and regulations," said another man.

And again:

"We shall be worse off than with the 4s. now paid by the clubs, for under the Insurance Act we shall have more work to do. In Clubs we have picked lives, here sick lives, chronics, no extras for syphilis, gonorrhea or drunkards. In clubs are no women, and there is at least three times the attendance required for women as for men."

Another doctor writes:

"If I had to attend three times the number of patients for a sum equal to about one-third of what I now make, not only could I not do it, but it would be rottenly done and White Slavery for the Doctor."

The British Medical Association as a body has stood out for seven cardinal points, the most vital points beings:

1. An income limited to two pounds a week for those entitled to membership benefit.
2. The free choice of doctor by patient, subject to the consent of the doctor to act.
3. Adequate medical remuneration.
4. That the profession shall not be under lay control.

Concessions have been made and, at this writing, an experimental three-year working of this act seems probable.

It is interesting to note that the objections of the physicians to this act have not been based so much on the idea of its entailing contract practice, in what we would consider its most unpleasant form, as on the rate of compensation. Certainly 4 s. 6 d., $1.25 per head per annum, as provided for in the original Act, is most inadequate when one considers that this involves day and night attendance, maternity care and surgical work.

The compromise offer of 7 s. 6 d., with some added responsibilities, chief of which is the care of tuberculous patients, excluded in the earlier act, does not seem much better and, indeed, from our standard, the 8 s. 6 d., the minimum which the British Medical Association signified their willingness to accept, seems woefully small.

CONDITIONS IN THE UNITED STATES

I have fully considered the National Insurance Act of England, because of the conviction that sooner or later we will see the enactment of similar legislation in this country.

Do you doubt the necessity for such legislation? Do you say that in this country there is no need of such paternalism, since our workmen are better paid, since we have not the large peasant class and the ignorant poor of Germany and England? Then let me call your attention to some estimates on poverty.

In 1897, according to the New York State Board of Charities, 29 per cent. of the population of New York City, and 24 per cent. in 1899, actually applied for charitable relief.

Estimates made in 1903 by Robert Hunter, after exhaustive investigation in New York and Boston, show that 20 per cent. of the people in Boston were in distress; that 14 per cent. of the families of Manhattan were evicted every year; that 10 per cent. of those who die in Manhattan have pauper burial.

From these figures, and others gathered in former years, he estimates "conservatively" that certainly not less than 14 per cent. of the people in prosperous times, and probably not less than 20 per cent. in bad times, are in distress.

And yet, the problem of abject distress, poverty and its relief, is, after all, of less importance than the question of how to prevent it.

Let me emphasize the fact that among the majority of hand-workers, the margin between an adequate living and independence and inadequate living and dependence, is very small and largely hinges on the maintenance of that most

precarious of things, health; health of the wage-earner and his ability to find each day his daily employment. It would be difficult to say what should be the minimum wage which would give the worker a margin of safety that would permit him to lead a well-ordered, efficient life. Many factors must be taken into consideration: the size of his family, his environment, his standard of living, and always there enters the personal element. In addition to these factors there are the unavoidable vicissitudes as represented by industrial diseases and accidents.

In 1907, Francis H. McLean[2] made a report of an investigation of 736 cases of industrial accidents, leading to dependencies, which had come to the notice of charitable societies. It is of special significance that about one-half of these accidents occurred to men under forty, belonging to unskilled trades, whose wages were less than $15 per week. There was a "marked deterioration in a considerable number of families resulting from their injuries, as shown in chronic dependency, intemperance not before present, widows' health broken, family disrupted, habits of begging developed, furniture pawned, etc."

An appreciation of the enormous cost to society of such industrial accidents and diseases has been given expression, in the last year or two, in legislative acts. By the nation, the Esch bill imposing a prohibitive tax on poisonous phosphorous matches, and a bill creating a "Federal Committee for the study of Industrial Diseases." By the various states, thirteen in all, various types of legislative acts, all looking to the protection of the worker through Workmen's Compensation and Employers' Liability Acts, and social insurance laws, in the attempt to alleviate that large amount of poverty directly traceable to industrial accidents.

MICHIGAN'S LAW

The Michigan Law, which went into effect on September 1, has many features worthy of the highest praise. It has not gone nearly as far as the Washington State Law, for instance, but as more or less experimental legislation it has, perhaps, gone quite far enough. The law throws directly on the employer entire responsibility for all accidents. It takes from the employer the defense: that the employee was negligent, except in cases of "wilful negligence"; that the injury was caused by the negligence of a fellow employee; that the employee has assumed the risks inherent or incidental to or arising out of his employment. The law, though elective both for employee and employer, does, as a matter of fact, tend to force the employer to come under the act, since it takes away his defenses. The law further provides for compensation to all injured workers a definite sum for definite injuries, and for death and disability, based on the workers' earning capacity.

This compensation seems to be as adequate as it could be without throwing an overwhelming burden on the employer. It is to the advantage of the employer to have as few accidents as possible, hence we may expect the installation of safety devices to reduce accidents to the minimum. No more will we have among those electing to come under this act individuals, at the instigation of shyster lawyers, attempting to mulct the employer. On the other hand, no more can the employer attempt to avoid just claims.

I do not believe that many responsible companies attempt to avoid just claims, but the frequency of imposters and the fear of unreasonable jury verdicts have served to build up a protective system of defense-insurance with the development of claim attorneys well versed in the art of carrying the claimant through "intricate tangles of litigation." On the side of the just claimant this law will bring direct to him, without litigation, a reasonable sum. No more will a certain type of lawyer, fortunate enough to win his case, claim the major portion of the judgment.

"CONTRACT PRACTICE"

With the enactment of this law comes a problem of vital interest to the profession; the problem of contract practice.

Section 4, Part 2 of the Compensation Act, states: "During the first three weeks after the injury, the employer shall furnish or cause to be furnished, reasonable medical and hospital service and medicines when they are needed."

It will, and indeed it should, be to the interest of the employer that his employee shall be attended by an efficient and skilful surgeon. In a material financial way it is to his interest to see that the worker will be attended by a man who will, by his ability, shorten the disability period on the one hand and save as much of the injured limb as is feasible.

The tendency will be, and the bill does not provide otherwise, for the corporation, or a group of corporations electing to come under this act, to authorize some man, or men, in whom they have perfect confidence, to administer this aid to their workers.

I fully appreciate that it would not be to the best interests of either the employer or employee

2. American Charities—Warner.

to permit the individual worker to choose his surgeon. In his ignorance he would all too often seek the quack, the unskilled, the man who perhaps competent enough in other lines, would be incompetent to do first-class surgical work. It would seem to be a better, fairer plan if such a corporation, or group of corporations—instead of giving one man a monopoly and forcing a surgeon, perhaps not personally agreeable to his employee—would choose a small number of surgeons, on whom they could rely, from whose number the injured worker could elect.

Naturally, the corporation will attempt to get their work done at the cheapest rate consistent with adequate service. A business concern is, however, too shrewd, has too much at stake, in this case, to expect thoroughly good service at a cheap rate. The danger of contract practice is, in my opinion, the danger not of taking a contract *per se*, but in taking a contract at a price inconsistent with the very best of service to the patient. Competitive bidding, either openly or in secret, must sound the knell of professional honor, professional ethics, efficient work and general fair dealing.

In these laws I see the entering wedge toward a broader, fuller legislation directed towards the providing of medical care to all of those unable to provide it for themselves; and with this, a more complete supervision of the health of the community that disease may be prevented rather than cured.

Mr. Owen, in introducing the bill that bears his name, said:

> "My purpose in urging a department of public health has been to establish a department of human conservation—educational rather than regulative which should deal with the matter from an educational standpoint, so as to make effective and efficient the knowledge which we are slowly acquiring with regard to the preservation of human life."

I believe that we can reasonably hope that the adoption of the Owen Bill, essentially an educational measure, will serve as an antidote to any attempt to socialize the medical profession of this country on lines similar to that of the British Insurance Act.

CONCLUSIONS

Nevertheless, the trend will be towards a certain type of governmental paternalism, in which the medical profession is bound to be involved. As a profession, it is well that we stand ever ready to aid the law-makers in the formulation of laws affecting the health of the community, but also ready to insist that we be consulted when laws are purposed which may vitally affect the present relationship between our patients and ourselves. Had, in England, the relation between the doctor and the public, and the doctor and the law-maker, been more intimate, Lloyd George would perhaps not have attempted to carry his bill through, rough shod, without consultation with the members of the profession so vitally affected by the act.

If the government is justified at all in taking this paternal attitude, then it surely is justified in the passing of laws for the protection of the public, and more especially the wage-earning class, from medical quackery, whether in the case of irregular physicians, chiropractics, neuropractics, or allied cults. It should, through definite laws, demand that the man who attempts to treat the ailments of another, shall have shown the state, through examination, that he has sufficient knowledge of the essentials of anatomy, physiology and disease to realize his responsibilities.

I plead for active work on the part of the profession towards the enactment of such laws.

THE CARE OF THE FEEBLE-MINDED

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Our modern civilization brings with it many heavy loads to carry and many problems of difficult solution. Some of these are pleasant and some are extremely burdensome, but whether the yoke be light or heavy, it cannot be slighted.

I propose to take up some of the problems of the feeble-minded. In this term are included all grades of idiocy and imbecility from the child that is simply dull and incapable of profiting by the ordinary school to the one that simply eats and drinks. The higher grade of this class can hardly be distinguished from his normal brother. Those at the other end of the class are human beings in name and form only. Although human in form, they cannot feed, dress or care for themselves. They are helpless as infants, except that they have the power of locomotion.

THE PROBLEM

What shall be done with the feeble-minded? Happily, this is no longer a problem in most of the states, and the prospect is fair that it will not long be such in any state. Civilization was long in answering the question, but the right answer has at last been given. The only place for the feeble-minded is in an institution where

they can be prevented from harming others or themselves, and where life can be made as pleasant for them as falls to the lot of the average human being.

There are few, if any, homes capable of caring for the feeble-minded child or adult with any degree of satisfaction. They are a burden to themselves and others. The parents, brothers and sisters are worn out trying to care for and shield them. Everything they do, or attempt to do, or with which they come in contact, is a worry to the family. The family is humiliated by their inability to keep up with their class at school, if, indeed, they can be sent to school; with their inability to care for themselves; the foolish things that they do and say; by seeing them become the butt of jest, ridicule, jibe and sneer. Countless mothers have been worried into nervous breakdown, insanity or an untimely end by the ceaseless anxiety and sorrow caused by such an afflicted one in the home. Many fathers have been driven to drink, sons and daughters to the street to get away from the unnatural and intolerable home conditions caused by the defective one.

The home care of a feeble-minded child consumes so much of the vitality and energy of the wage-earners of the family, that often the entire family is pauperized. It is a public duty to relieve these families of their burdens. The older the child becomes the greater the home problem. Some, though not many, are vicious; all have weak will-power, most of them an imperfect sense of right and wrong. The males often become loafers, paupers and preyers on property. The women fare no better from the fact, that they nearly always possess weak will-power, a blunted sense of decency, a reduced sense of responsibility and are decidedly more apt to be led astray and become the mothers of illegitimate children and not infrequently prostitutes, and as such, become the carriers of disease to a community and a further means of debauching others.

"The trouble with the problem of the feeble-minded," said Joseph H. Choate, "is that there are too many of us. No doubt there are more of us than Mr. Choate suspects.

Of all our natural resources, the conservation of human life is surely the most important. It has been well said, that our public institutions for the insane, the criminal and the defective are but monuments to our own folly, yet until the source of the trouble is eliminated, we must continue to build them in order that provision may be made for all who should be within their walls. The child, who should never have been born, cannot be put out of existence, but can be developed and trained. His presence should be detected early and he must be protected always, for though many can be made self-controlling, few, as Dr. Fernald tells us, can be made self-supporting. The years of greatest receptivity of the defective as well as of the normal child are the early years.

That it pays better to provide permanent care for a feeble-minded boy or girl, during the entire reproductive period, than to support their offspring, admits of no argument. And each year's delay in their permanent segregation means added expense, difficulties and misery. That the segregation of defectives costs money is remembered; that it saves money is often forgotten. The state of Michigan spends more money for the care and training of defectives than for all its purely educational institutions. As tax-bills are not itemized, the ordinary citizen does not realize that he is at present paying for the unrestrained presence of the feeble-minded. An added tax for their segregation would be an apparent, rather than a real, increase, for through segregation of defectives the number of criminals and prisoners, the cost of trials and the demand on public and private charity would be decreased.

STATISTICS

According to Goddard, 300,000 persons in the United States are feeble-minded. About 500,000 have not sufficient intelligence to manage their own affairs with ordinary prudence and are unable to compete with their fellows on equal terms and thereby to earn livelihoods. A still larger number have not sufficient will-power to force themselves to do the right thing, when it is pointed out to them. This army of more than 500,000 persons furnishes the recruits for the ranks of the criminals, the paupers, the prostitutes, the ne'er-do-wells and others of our social misfits. The managers of our jails, reformatories and prisons estimate, that from 4 to 50 per cent. of their inmates are feeble-minded. Since the larger number is given by those who are more familiar with the problems of feeble-mindedness, it is apt to be nearer the truth. By actual tests that have been made in reformatories for girls and boys, 25 per cent. were found to be feeble-minded. It is safe to say that the majority of boys and girls placed in homes from our state public schools, who never made good, are feeble-minded. Goddard's examination of 100 youths of the Newark Juvenile Court found one who had average mentality. All the rest were below, while sixty-six of them were so far below as to be beyond question.

What has been set forth so far goes to show that until a careful canvass is made by trained investigators, we can only guess at the truth. I believe that 1 in 500 is entirely too conservative an estimate of the ratio of the feeble-minded to the total population, and that 1 in 300 is more nearly correct. According to this ratio, we have in Michigan 9,367 defectives, with a little more than 10 per cent. in this institution. Lapeer County, with a population of 26,033, has eighty-seven, of whom twenty-six are here, leaving sixty-one at large.

SEGREGATION AND PROPAGATION

Segregation appears to be the solution for the care of defectives. Segregate the defectives of one generation to prevent the multiplication of their kind in the next. No one can lay too great emphasis on this need and the requirement of humane care, for unfortunate individuals, which it implies. Nothing short of segregation for the feeble-minded is kind to them or safe for society. Yet, if we could place to-day in special homes, schools and asylums every mentally-defective individual in the world, there would still be a need to consider the prevention of feeble-mindedness to-morrow.

We must try to make men and women see that parenthood is a serious obligation, and that every child has a right to suitable care. We must, also, try to make the thoughtless question their right to bring children into the world under conditions which are detrimental to child-life and for society to care for, however troublesome or deficient those ill-born children may be. There must be a halt called in the propagation of these classes, whose support becomes every year more of a burden to the state and whose constant increase, unless checked, means the deterioration of the race. Any restriction of the right of marriage is unpopular, and yet the state has said that persons, in order to enter into a valid contract of this character, must be of a certain age and capable of contracting, etc. As to all persons who have been legally adjudged to be insane, idiotic, epileptic or feeble-minded and who have not been cured, the law should be absolute that such persons shall not marry, neither should persons who are not thus afflicted be permitted to marry those who are so afflicted. Why should we, for sentiment's sake, or for fear of abridging the liberty and right of the individual, leave the way open for such people to legally propagate their kind? We are morally responsible for permitting acts which are almost certain to result in bringing into the world more insane, more epilepties and more feeble-minded.

SOLUTION

The solution of the problem is not visionary. The work that we are doing in the institutions for feeble-minded is the only remedy needed. All that is required is that we be given power to say when a child should be discharged and that we be given sufficient means to care for all applicants. And everyone, who is familiar with child-work and the great relief to a community that the care of this class gives, will agree with me that we should be given this power and the financial means. The medical profession, as a whole, and the general public are not familiar with our work. They do not understand the object of teaching this class if they cannot be made normal. The majority of people still believe that we are trying to cure the feeble-minded and not succeeding to a marked degree. So I wish to make a strong plea for a wider publication of our work and the problems we are trying to solve.

CONCLUSION

In conclusion, I trust that along with your labors in the interests of normal minds you will not forget the unfortunate. It is true that much has been done for the defectives, as evidenced by the generously provided institutions for the deaf, the blind, the feeble-minded, the indigent, etc. We may truly feel proud of the efforts in this direction. As a people we need only to recognize our duty in order to get proper response.

PERNICIOUS ANEMIA *

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Biermer's celebrated discourse in the year 1872, in which the name "progressive pernicious anemia" was employed for the first time, constitutes the beginning of our knowledge of this subject, and undoubtedly gave the impulse to the numerous subsequent investigations and communications.

Lebert, in 1853, and Addison, in 1855, described severe anemic conditions, which they expressly differentiated from others as a special form. They gave it the name "essential anemia" or idiopathic anemia.

While Biermer gave the first accurate description of the disease based on some fifteen cases, a solid basis for the definition of progressive pernicious anemia was not found until the immense gap in his work was filled by an exact description of the blood-changes.

* Read before the Berrien County Medical Society, Niles, June 13, 1912.

Ehrlich's work clearly defined the blood-changes and showed their significance in pernicious anemia. According to Ehrlich and his predecessors, a typical case of pernicious anemia shows a more or less large number of red blood-corpuscles of more than normal size, while in simple anemias the erythrocytes are normal in size or smaller. The appearance in the blood of megaloblasts as well as of their nucleated preceding stages, indicates that the regeneration of the blood no longer proceeds in the physiologic way. It simulates the formation of blood in the embryo. All these characteristics show a profound functional alteration in the most important blood-making organ, viz., the bone-marrow. The changes in the blood are so striking that they demand a differentiation of the megalocytic and megaloblastic anemias from the normacytic and normoblastic anemias. The description of the blood-changes will be considered a little later in the paper.

ETIOLOGY

As to the cause of pernicious anemia, there seems to be a variable predisposition to the disease in different places. Explanations based on difference in nutrition are not adequate, for the disease is not at all rare in individuals in the most favorable material circumstances. Statistics collected in Germany seem to indicate the disease is more prevalent in the female, while in a series of cases observed in America the disease is more often found in the male. In both sexes the disease seems to occur in the so-called "best years," or the third and fourth decennia. However, old age and youth are not entirely exempt. Heredity seems to play no part in the origin of the disease. Robust and healthy people are as frequently and severely attacked as the delicate.

There is a group of anemias called by some writers pernicious anemia, in which the etiology is completely explained. I refer to the intestinal parasites, *Bothriocephalus latus,* and the *Anchylostoma duodenale.* The *Bothriocephalus* larvae grow in the muscles and peritoneum of the pike and other fish. Experiments have shown that these larvae grow into the adult worm when eaten by man. This tape-worm is large and long, measuring 25 or 30 feet or more in length.

The most convincing proof of the *Bothriocephalus* being a cause of some cases of anemia, is found in a rapid subsidence of the symptoms, and complete cure when the worm is expelled.

The *Anchylostoma duodenale* is also capable of producing an anemia like the *Bothriocephalus.* This worm was first discovered in upper Italy and in Egypt in large numbers. They inhabit the upper intestine, especially the duodenum, but also the jejunum and ileum. The male is one-fourth to two-fifths inches long, and the female somewhat longer.

The blood conditions found in both the *Bothriocephalus* and the *Anchylostoma* anemias possess all the characteristics demanded by Ehrlich, and therefore are looked on by some as cases of pernicious anemia with known etiology.

DIAGNOSIS

The differential diagnosis between a primary and a secondary anemia depends largely on our ability to find the *materies morbi* in a secondary anemia.

Chlorosis can usually be diagnosed by the blood examination, and the more ready response to treatment.

In carcinoma, unless it be latent, there is not much difficulty in differentiating.

Pregnancy as a cause of anemia; syphilis, endocarditis and intestinal parasites can generally be separated from a primary anemia.

The clinical picture of pernicious anemia is quite characteristic. The lemon tint in the skin, the gradual loss of strength, tinitis aurium, hemic murmurs over the base of the heart and the large vessels of the neck, occasional hemorrhages from the mucous membranes and the retina, subcutaneous fat being usually well preserved, all point to a pernicious anemia.

BLOOD FINDINGS

The blood examination shows a polychromatophilic degeneration, and the presence of nucleated red cells, particularly megaloblasts, enables one, in most cases, to make a positive diagnosis.

The number of red cells in normal blood ranges from 4,500,000 to 5,000,000; in chlorosis they average 4,000,000, rarely under 2,000,000. In pernicious anemia they average 1,000,000, but may be as low as 150,000. There are microcytes, megaloblasts and poikilocytosis. In secondary anemia the count may be as low as 1,000,000 or less, with small poikilocytes. Normoblasts are occasional in chlorosis, moderately numerous in pernicious anemia, and common in secondary anemia.

Megaloblasts are rare in chlorosis and present in pernicious anemia, constantly predominating over the normoblasts. In secondary anemia the megaloblasts are rare, never predominating over the normoblasts.

The hemoglobin is normally 90 per cent. to 100 per cent. In chlorosis, 40 per cent., always relatively low. In pernicious anemia the hemoglobin is always relatively high. In secondary anemia it is relatively low.

Color index in pernicious anemia is plus; in the secondary anemias minus. The color index is, according to some authorities, the most positive blood condition in aiding one to a differential diagnosis.

According to Strümpell, the blood-changes in pernicious anemia show no characteristic changes. He claims the changes seen occur likewise in cases of profound secondary anemia. The blood-picture only proves that we have to do with a severe injury to the bone-marrow.

CASE REPORTS

Having had recently two cases of pernicious anemia, I was invited to study with new interest this quite rare and interesting disease. I have been able to observe one of these cases closely from a clinical standpoint, and, with the assistance of Dr. Rosenbury, to make careful blood examinations.

The patient, T. C., aged 49, formerly an engineer, has an interesting history. He was well as a child and also as an adult till February, 1902, when he had an attack of gangrenous appendicitis. He was operated upon in a Milwaukee hospital. The abscess was drained, and he left the hospital in four weeks. In May, 1903, fifteen months after operation, he had strangulation of the bowel, presumably from adhesions, a result of former attacks of appendicitis. He was removed to Augustana Hospital, Chicago, thirty inches of bowel resected, and colostomy performed. For five months feces were evacuated through the opening in the side. In September, 1903, fistula was closed and the patient resumed work in one year.

Present illness began, as near as can be determined, in the summer, 1911, when his health began to fail. He had irregular attacks of diarrhea, and was in varying degrees of health till January, 1912, when he was forced to discontinue his business, that of restaurant keeper. I saw him first the last of February, 1912. He presented the picture of profound anemia. While not confined to bed all the time, he was weak and exhausted on exertion. Temperature 98.6, pulse 100 to 110. A distinct hemic murmur was heard over the large vessels of the neck. Urinalysis negative. Patient was put to bed, and placed on expressed beef juice, milk, cream, eggs, and other nutritious food. In spite of this he grew steadily worse. He was absolutely colorless. Pulse 110 to 116. Temperature constantly above normal, ranging from 99 to 100 degrees. He had temporal pain, and roaring in the ears.

On May 3, 1912, blood-examination showed 720,000 red corpuscles, leukocytes slightly decreased; hemoglobin 20 to 30 per cent. Talqvist; color index plus. Marked poikilocytosis. Many macrocytes and microcytes. Megaloblasts abundant. Few normoblasts. Note the preponderance of megaloblasts over normoblasts.

The clinical symptoms and the blood-examination looked as though the patient would surely die in a short time. He did decline rapidly. Temperature arose to 102.8 and pulse 120 to 130. He became stupid and his mind confused. Epistaxis and retinal hemorrhages ensued, first in one eye, and then the other. Anorexia and vomiting came on, and no one thought he would survive more than a few days. He remained in this condition for about ten days, taking little nourishment, when he began to improve. Temperature reached normal, mind cleared, as he expressed it, "The wake up." Rapid pulse slowed down to 100 or less. Hemic murmur became less pronounced and soon disappeared. His color quickly improved, and the entire picture became one of encouragement.

Blood-examination June 3, 1912, one month after first examination, showed 1,200,000 red cells as compared to 720,000 May 3rd. Hemoglobin 40 to 50 per cent. Talqvist. Color index plus. Poikilocytosis not so marked. Macrocytes and microcytes less marked. A few megaloblasts. A few normoblasts. A decreased number of white cells.

Patient feels much better and has been to place of business. Bought a horse and is driving out every day. There is at this time edema of ankles and tenderness to pressure over long bones. Appetite good. Has some diarrhea.

Feb. 7, 1913.—Patient remains well and is managing a hotel in Ft. Myers, Fla.

Knowing the tendency of this disease to remissions, I am making no predictions and am watching with interest further progress of the case.

The medicinal treatment in this case has been: hemoglobin with arsenic, red bone-marrow, cacodylate of sodium hypodermatically, Fowler's solution, and later a preparation of iron was added to the treatment.

THE USE OF CALCIUM HYPOCHLORITES IN WATER PURIFICATION *

F. C. Penoyer, M.D.
South Haven, Mich.

The use of hypochlorites for sterilization of public water-supplies, filtered or unfiltered, has now reached a stage of efficiency where it is safe to say that a new epoch in the art of water purification is at hand.

Practical filtration has been accepted less than twenty years. In 1890, less than two hundred thousand people in this country were supplied with filtered water. In 1900, the number had increased to one and three-fourths millions, and at present over eight millions are being supplied with filtered water.

The efficiency of filter plants is based on the removal of bacteria from the unfiltered water. Filters will not remove all of the bacteria, but are considered efficient if the removal of 90 per cent. is accomplished. Germany has attempted to maintain a standard of purity for filtered water of 100 bacteria per c.c., but operations in this country show that it is not possible to live up to

* Read before the Kalamazoo Academy of Medicine, Sept. 24, 1912.

this standard, and with all filters, at times, the number of bacteria will rise to several hundred per c.c.

Filtration has undoubtedly reduced the typhoid death-rate 75 per cent. in those cities using filtered water, but in the last two years the practical adaptability of hypochlorites, in rendering filtered waters sterile, has been clearly demonstrated. The first practical demonstration, in this country, of the usefulness of the hypochlorites for water purification, was made at the Union Stock Yards in Chicago, in 1908; following this, Jersey City, Cincinnati, Columbus, Philadelphia and many other large cities, in this country, began its use.

Hypochlorite of lime, commercially known as chlorid of lime, can be purchased in large quantities at 1⅓ cents per pound, and is usually purchased on the basis of its strength in so-called "available chlorine," which runs in this country at about 35 per cent. pure. The chemical, as bought, is a mixed salt consisting of approximately equal parts of calcium chlorid and calcium hypochlorite. When the powder is added to water the calcium chlorid remains inert, but the calcium hypochlorite being acted on by the free and half-bound carbonic acid in the water, splits up into calcium carbonate and hypochlorous acid. The decomposition of the exceedingly unstable hypochlorous acid liberates oxygen in a very active state and leaves hypochloric acid. This acid unites with the calcium, driving off the weaker carbonic acid, and forms calcium chlorid. It is the liberation of the oxygen in this manner that effects, by oxidation, the destruction of bacterial life.

Where quantities no greater than 5 to 15 pounds of the powder are applied to one million gallons of water, as is the common practice, the changes in the physical and chemical properties of the water are so slight as to be barely noticeable. The important result is the practical destruction of the bacterial life in the water, more particularly the pathogenic germs.

The total elimination of bacterial life is not considered necessary in the purification of water. It is known that the hypochlorites have a selective action on the typhoid and colon bacilli, which are the most important bacteria to eliminate in drinking-water, while the more resistant spore-forming bacteria are harmless and can be disregarded. Larger quantities of hypochlorite added to the water, to kill these forms, would be detected by odor and taste, and be disagreeable. I have never detected the taste or odor of the hypochlorites in our water, since its use, from the 7½ pounds to the million, but some of our citizens report an unpleasant taste detected from water at the power house.

Chemists have thoroughly analyzed the waters thus treated and none have been found that report any free chlorine in the water, and the other chemicals are non-poisonous.

The opponents to the process have tried to locate a toxicologist who would classify this treatment as a poisonous one, but such efforts have failed.

Dr. A. J. McLaughlin has recently made a report on sewerage pollution of navigable waters in this country, with reference to the spread of typhoid fever. The death-rate from typhoid fever in thirty-three of the principal cities of Europe is six and five-tenths per one hundred thousand; the death-rate in the United States from this cause is twenty-five per one hundred thousand. A comparative estimate in 1910 will place deaths from typhoid fever in the United States above twenty-five thousand.

Dr. McLaughlin makes a more startling comparison for the whole United States—the number of cases each year of a preventable disease would reach 175,000. In 1909, there were more cases of typhoid fever in the United States than cases of plague in India, in spite of the fact that India's population is two and a half times that of the United States. From January, 1907, to October, 1911, in Russia, there occurred 283,000 cases of cholera, this including the great epidemic of 1910. During the same period there were one million and a quarter cases of typhoid in the United States.

We are accustomed to speak of these countries as pest-ridden, but do we consider the prevalence of typhoid fever in our own country with sufficient seriousness? The city of Niagara Falls has the greatest death-rate from typhoid fever in the world. In 1907 it was 222 per 100,000, and has had an average of 130 for the past ten years, and this does not include the death-rate among the hundreds of thousands of visitors to the Falls that yearly, it is said, spread the germs to every state in the Union.

The conditions in South Haven, previous to the installation of the present system, are shown by the accompanying charts. The great increase in typhoid fever cases during the latter part of 1911 aroused the citizens, and a weekly bacteriological test of the water soon proved the cause of our epidemics to be the city water. Previous to that, the occasional reports had been good and the authorities refused to listen to the repeated warnings of the physicians. Dredging operations in the harbor caused the water to be turbid, and

in October a bacteriological test showed 2,800 bacteria to the cubic centimeter. This was immediately flushed out, but in November, 1,100 to the cubic centimeter were found, and all later tests reported unsafe. Various plans were suggested for obtaining a pure water-supply for our city. Inability to find sufficient water from deep wells forced the consideration of a filter plant, but about that time the facts regarding the effectiveness of the hypochlorites came to the attention of the authorities. The temporary plant, as used at present, was devised and installed. Two pounds of the hypochlorites are thoroughly mixed with fifty gallons of water, and, by a hand-pump, forced into the reservoir, as shown in the chart. This solution runs into the mains, before the water goes through the pumps, to insure thorough mixing. The rate of flow of the hypochlorite solution is based on the amount necessary to mix seven and one-half pounds to the million gallons.

The hypochlorite apparatus was installed at a cost of less than a hundred dollars and began to operate April 17, with a running expense of but a few cents per day. The weekly reports of 200 to 600 bacilli to the cubic centimeter immediately dropped to 12 and 20 per cubic centimeter, and no colon bacilli were found. The supply of hypochlorite running out May 15, one-pound cans were purchased at the local stores, and May 17 an unsafe report was returned with the finding of a few colon bacilli. No cases of typhoid occurred in the city from the installation of the plant until the latter part of August, when two were reported. These may have come from other carriers, or may have been due to water, as a feeling of over-security prevailed, and weekly samples were not sent for some time. September 7, a report was returned of 45 bacilli to the cubic centimeter, and a few colon bacilli were found, but the water was considered safe. It became apparent that the engineers at the power plant could not be expected to be efficient scientists, and the possibility of an irregular flow of the solution was investigated. The automatic regulating apparatus was installed and an hourly report required and filed of the amount of the solution passing into the mains. This report goes to the Health Officer daily, and it is hoped will place a satisfactory check on any possible irregularity in the flow.

The application of the hypochlorites to the water of the Great Lakes is certainly the finishing touch to the furnishing of a safe water-supply to the many millions in the cities of this country. This process does not satisfactorily apply to waters that contain substantial quantities of reducing agents or compounds capable of oxydation, such as the nitrates and unoxydized iron; it does not remove turbidity or penetrate to bacteria embedded in particles of suspended matter in the water, and it does not take the place of filtration. Where waters are objectionable in physical appearance and are also polluted, the combined use of filters and the hypochlorites meets the conditions fully and greatly reduces the cost of filtration. Chemical analysis of our water has demonstrated that there is no purer or more healthful water in the country than that of the lake. By removing the pathogenic bacteria, as described, we hope that South Haven has removed the one serious drawback to our success as a health resort.

MEMBRANOUS PERICOLITIS OR JACKSON'S MEMBRANE *

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FLINT, MICH.

It has been truly said that the only things we see are the things for which we are looking. This has certainly been my experience during the past six months in looking for Jackson's membrane. Jackson's membrane, so called, had long been described before Jackson's time, but Jackson should have the credit for his description, according to F. Gregory Connell.

Jackson described this membrane as a thin, cobweb-like veil, with long, straight, unbranched blood-vessels extending from the right lateral or parietal wall commencing from on a level with the hepatic flexure to a point about three inches above the level of the caput coli, which fan-like structure is attached to the internal longitudinal band of the colon just above the caput. Sometimes, he states, under this membrane are seen spots or tabs of fat.

Arbuthnot Lane, of London, has also described adhesions about the ileocecal region, the ascending and descending colon, but the Lane kink has come to mean an angulation of the ileum by an adhesive band, which results in more or less obstruction. Lane and others have resorted to excision of the colon, or ileosigmoidostomy, in the more severe cases of adhesions involving the colon.

The six cases which are here reported have occurred in my operative work in the past year. Five of the cases have been seen in the last five months. Two of the cases had already lost their appendices, but still complained of pain and were willing to undergo operative procedures for relief.

* Read before the Oakland County Medical Society Meeting, at Lake Orion, Mich., May 30, 1912.

None of the cases should be classed with "Lane's Chronic Intestinal Stasis." One case had diarrhea, and the others, while more or less constipated, were not markedly so. In one of the cases the symptoms were referred entirely to the stomach. Two cases were supposed to be suffering from mild intercurrent attacks of appendicitis. One case had been operated on a year before for pelvic trouble, and reappearance of pain across the abdomen called for a second operation. In this case there were severe cramps that called for hypodermics of morphin. It was noticed in all the cases that the pain was unusually high for appendicitis. In one case the diagnosis would be more suggestive of gall-bladder infection, but without the tenderness over the Mayo-Robson's point, this case in fact did have a diagnosis of gall-stones.

With the exception of two cases, the membrane was not that described by Jackson, but was a thick, broad membrane extending the whole length of the ascending colon. Nothing web-like at all, but a membrane as thick or thicker than common blotting paper. Binnie, according to Connell, had in 1905, described the symptoms as an almost typical attack of chronic appendicitis with one or more acute exacerbations. In our cases the pain would be considered too high for typical appendicitis. Three of the cases had more or less pain continually. In only two cases was there a concomitant Lane's kink. In four cases the appendices were removed. In two cases they had already been removed. In nearly all of the cases there was immediate relief of the pain. In one case the membrane was not only attached to the colon, but grasped a loop of small intestines.

Neither of the suggestions of Connell for the treatment appealed to me. The first suggestion, to free the membrane from the parietal side, twist and attach to anterior abdominal wall, he has since abandoned because of the danger of obstruction of the bowel by strangulation of a loop of bowel. The second suggestion, to bring out the twisted end of the membrane into the lateral abdominal wall by a process similar to the treatment of the round ligament in Gilliam's operation, has seemed to me unnecessary, because I have seen no discomfort from a movable cecum without other abdominal lesions.

In the cases reported the entire membrane was removed, and after bleeding had ceased, the raw surfaces were covered with sterilized vaseline.

I do not believe that a movable cecum alone is a surgical disease. A dilated cecum may or may not call for a surgical operation. A cecum with adhesions about it is an entirely different affair and needs surgical attention if it causes symptoms. "Why in certain cases of adhesions there are produced symptoms and why other cases present no symptoms whatever," will be a subject of discussion in this paper.

It is a matter of common knowledge that after the abdomen is opened and operative work is being done on the intestinal organs, that little anesthesia is required. This supports the views of Lennander, who is more frequently quoted than others on the subject of visceral sensibility. Lennander contends, in a general way, that all the viscera with their coverings are insensible to pain, pressure and temperature, while the parietal peritoneum and external walls of the abdomen are very sensitive to these sensations. When the viscera are inflamed, however, they are able to cause a pain sense. When not inflamed the viscera may be pinched, but are sensitive when traction or pulling on the mesentery is made, due to nerve filaments in the mesentery. When the internal organs are inflamed, the pain sensation is felt or realized at the terminal portions of what I may term the external or cutaneous nerves. This, briefly, is the impulse received by a spinal segment of the cord which is reflected to the external wall protecting the cavity.

A nerve when stimulated to activity, gives rise to its peculiar functions. Stimulation of the optic nerve causes the sensation of light. If the auditory nerve be stimulated or irritated we have the sensation of sound, and if it be a sensory nerve we have the sensation of pain which is realized at the peripheral distribution of the nerve. Sometimes these impulses are sent out on the opposite side of the body and not on the corresponding side. Then again, a neighboring segment receives the impulse, and the pain is felt at a distance from the lesion. This explains the difficulty at times in localizing a disease in the abdomen.

In the cerebrospinal system the region of pain is the place of painful stimulation, whereas in the sympathetic system the pain does not record the place of painful stimulation. Gall-stones may cause pain in the stomach or in the back, or in the right shoulder. Chronic appendicitis may occur with symptoms referred entirely to the stomach. In acute appendicitis the pain at the beginning is not over McBurney's point, but in the pit of the stomach followed by vomiting and shifting of pain to the navel or right inguinal region. These familiar illustrations are seen every day. In fact, we believe that 90 per cent. of stomach cases are not stomach cases at all, but cases which clear up with the removal of the exciting factor elsewhere in the abdomen. Some even place this percentage of reflex stomach

trouble higher and place the balance of the real stomach trouble as due to ulcer and cancer. The stomach specialist has been forced to become the gastro-enterologist. Approximately 10 per cent. of stomach cases are due to general diseases such as anemia, neurasthenia, tuberculosis, etc.

The peritoneum is a very delicate structure and covers an area nearly equal to that of the skin. Wagner figured from experiments that the peritoneum can absorb 3 per cent., 4 per cent., and up to 8 per cent. of the body weight in one hour's time. The upper abdomen can absorb, through the peritoneum and omentum, a larger amount than the lower abdomen, which explains the beneficial effects from the sitting position in peritoneal infections. Fifteen years ago we elevated the foot of the bed and wondered why the patients died. We hurried the case along as much as we could. We were taught in college that the peritoneum was perforated by numerous stomata and stigmata, or direct channels from the cavity of the peritoneum into the lymphatic vessels. This has been denied and the work of MacCallum, Mascatello and others shows that the endothelium of the peritoneum is continuous and has no direct openings into the lymphatic system. We have also learned that this endothelium is very fragile, is easily injured, and so delicate that no antiseptic solution should come in contact with it—not even water. Asepsis of the abdomen, not anti-sepsis, will give the best results in infectious processes, result in less damage in the clean cases and will prevent post-operative adhesions.

The most important characteristic of the peritoneum is its power of taking care of infections. It is able to do this by phagocytosis and by its peculiar ability to form adhesions around an infective area. It is often remarked that the peritoneum will tolerate more infection than the abdominal wall. It is pointed out that the abdominal wall will suppurate, while none occurs in the abdomen following operative work. Adhesions are Nature's best method of combating an infection or injury, but unfortunately at times these adhesions cause trouble. Surgery of the gastro-intestinal tract depends on the ability of the peritoneum to form rapid adhesions. Quite strong adhesions will form around gauze packed in the abdomen during operative work, in half an hour. In six hours' time adhesions are remarkably firm. This agglutinating power is extremely useful, but may prove a source of great danger. Most adhesions disappear in time if the exciting cause has been removed, as I have often seen unusually dense adhesions in pelvic, gall-bladder, stomach and appendix cases, which had entirely disappeared in later operation. I doubt very much if it is possible to open and close the abdomen without some adhesions, but all efforts in operative work should be to produce as few adhesions as possible. We try to prevent adhesions by avoiding infection, by not injuring the peritoneum, by mechanical means, by covering all raw surfaces with peritoneum after treatment, by position of the patient to carry the bowels by gravity away from operative field, by cathartics and by the careful use of morphin.

The adhesions which are most frequently met with in the abdomen, are those around the uterus and tubes, from pus tubes; adhesions around the appendix, ascending colon, descending colon and sigmoid; and those found in the upper abdomen around the gall-bladder and duodenum.

The virulence of the septic contents of the intestinal tract increases from the duodenum to the ileocecal region, where it reaches its climax. It has been shown by Franke that the cecum and ascending colon are connected by a train of lymphatics with the right kidney. This explains the train of symptoms exhibited by one of the cases I reported. Here the presence of pus and blood in the urine with a negative condition of stone in the kidney shows the advisability of learning the condition of the cecum and colon. This may explain a one-sided nephritis on the right side. It is my belief that adhesions are formed around the cecum and ascending colon by the septic condition of its contents, not by rupture or inflammation, but by the continual irritation of bacteria that transmigrate through the walls. Some of the cases are the result of inflammation of the appendix. But this will not explain all of the cases.

The cases are as follows:

Case 1.—C. L., aged 26. Operation June, 1911. Patient complained for a year of weakness and inability because of pain in the stomach after meals. Food caused a feeling of a stone in the stomach. Was unable to do any work because of general weakness. Examination was negative except tenderness over McBurney's point and some tenderness along the ascending colon. Laparotomy showed an enterolith in the appendix and a typical Jackson's membrane. A Lane's kink. Duodenum, gall-bladder and ducts were negative. Appendix was removed. Jackson's membrane removed. Recovery gradual in three months.

Case 2.—Jos. ——, a Pole, entered Hurley Hospital with a running fever of several weeks' standing. Tuberculin and typhoid agglutination tests negative. Blood-count negative, no leukocytosis. Complains of pain in right back and right flank. Pus cells and blood in urine. Exploration of right kidney revealed a normal kidney

and ureters clear. Abdominal incision showed adhesion around the appendix and adhesions from hepatic flexure to cecum. Appendix and membrane removed, adhesions broken up and vaseline applied. Relieved of pain almost immediately and bladder cleared up.

CASE 3.—Mrs. M., operated on a year ago for large parovarian cyst and cystic ovaries. Cyst and ovaries were removed. A year after patient complained of general abdominal pain which at times required morphin for relief. Pains were colicky in nature and more in right side and across upper abdomen. Operation through right rectus muscle showed a tough, thick membrane from right hepatic flexure to cecum. Appendix adherent, which was removed. Complete recovery from pain. She had had no known attack of appendicitis.

CASE 4.—Operation at Otter Lake Medical and Surgical Sanatorium. Was operated on for removal of the appendix a year ago. A mass of adhesions bound down the cecum so it could not be raised at first operation. Second operation became necessary for relief of pain. A membrane was found the entire length of the ascending colon and attached to right lateral wall. This membrane also caught a loop of small intestines. This membrane was removed, and sterilized vaseline applied after bleeding had ceased. Saw patient the other day and he said he had not felt so well in fourteen years.

CASE 5.—H. B., Orion. Patient had frequent attacks of what were diagnosed as intermittent attacks of appendicitis, but was never laid up in bed. Operation showed a Lane kink and a small Jackson membrane. Case is too recent to say what the results will be.

CASE 6.—Mrs. ——. Operation at Hurley Hospital. Was operated on eight years ago for acute appendicitis. A small ventral hernia followed. Pain in right side and flank. Membrane was present the entire length of the ascending colon. Rest of abdomen normal. Membrane removed and herniotomy performed. Immediate relief of pain.

A FEW AIDS FOR THE GENERAL PRACTITIONER*

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During the last seven years, the general practitioner has added to his armamentarium more definite, positive and specific aids than for the preceding twenty-five years, and for these we are indebted to such men as Wright, Metchnikoff, Beek, Bulloek, Ehrlich and many others. The limited time I am permitted to consume in presenting a paper of this kind, allows me to mention only briefly, some of the more important.

Aside from the many aids in diagnosis that we are able to obtain from the laboratory, our field of therapeuties has been greatly enlarged. Let us take up briefly the action of our killed bacterial emulsions, improperly termed vaccines. Wright claims that on the introduction of a vaccine there is a substance produced in the blood, which he has named opsonin and which he is able to measure. This substance inhibits the action of the invading organism so as to make it more susceptible to phagocytosis; others speak of similar substances that produce bacteriolysis (solution of bacteria), agglutinins (clumping of bacteria), etc., all of which prepare the organism for ingestion by the leukocyte.

When this field was first opened, in 1904, by Wright, Newfield, Rimpau and others, we were led to believe that only our chronic cases could expect benefit from this line of treatment; that the acute cases should be treated with the different sera in which an antitoxin had already been prepared, but now we know that they are beneficial in both acute and chronic cases.

I will not attempt to settle the mooted question of the relative value of stock versus autogenous vaccines, for though I believe any of us, with a limited amount of laboratory experience and proper equipment, can—as many of us do—make our own autogenous vaccines. The question of time lost, difficulties involved in isolation and culture of the offending organism, the trouble and expense of making or having made the vaccine, will cause the general practitioner to lean toward the stock variety.

Before condemning this line of treatment—when our results have not been all we could wish from the stock variety and it is possible to make or have made an autogenous vaccine—it would be advisable to give it a thorough trial. Theoretically, there would be no argument between stock and autogenous vaccines, for it is well known that there are many different strains of the same organism, differing as to virulence and probably many other characteristics, and it would be but natural to expect the patient to react more favorably to his own particular organism than to that from a foreign source.

I believe it to be now generally conceded that many of our infections, though primarily due to a single organism, exist but a short time as such, for, with the patient's resistance lowered, there soon develops a multiplicity of infections, each contributing its share to the clinical picture. Though always opposed to polypharmacy as presented to us by the well-read (?) representatives of our pharmaceutical houses, I believe, for the above reasons, that many of the mixed vaccines, as we find them on the market to-day, to be

* Read before the Newaygo County Medical Society, Nov. 14, 1912.

valuable, rational preparations, worthy of further trial by the profession. There has been a great deal of unnecessary "vaccinophobia" rampant in the minds of the profession, as to the great danger of introducing into our patient's economy the killed organism of a kind foreign to the one from which he is suffering, and that it is absolutely necessary to make a positive bacteriological diagnosis before using the vaccine.

If we are rightly informed as to the *modus operandi* of our vaccines, we must readily conclude that we have not benefited our patient by giving him the "wrong medicine," but simply raised his opsonic index for that particular organism and *nothing more;* especially, when we consider the small doses at present advocated by our vaccine manufacturers.

I will not weary you with a report of individual cases, but will say that I have had a somewhat diversified experience with vaccines, having used both the stock variety and the autogenous vaccines of my own make, with pleasing results in a large proportion of cases, both acute and chronic. I have, also, had many failures, which I believe may be attributed to faulty diagnosis, improper dosage, or some other cause unknown, but not necessarily a fault of the method. I consider them of such value that I carry a variety of stock vaccines for immediate use, and if an autogenous vaccine is decided on, the patient can at least be kept from losing ground while I am preparing his special vaccine.

When we realize that a very large proportion of the diseases we are called on to treat are the results of bacterial invasion from some well-known organism that can usually be diagnosed clinically, and by administering a vaccine that in no way interferes with our routine treatment, we can raise our patient's resistance, we must certainly admit it to be a valuable assistant.

There are many cases where the offending organism cannot be so easily diagnosed. We can then resort to a bacteriological examination and use a similar organism of the stock variety, or have an autogenous vaccine prepared.

A large number of writers on this subject insist on a bacterial diagnosis in every case. Some contend that the opsonic index should guide both diagnosis and treatment, but, as the average practitioner has neither time nor inclination to carry out an extensive line of laboratory work, this combination has greatly retarded the advance of vaccine therapy.

I believe that the average practitioner of to-day has a sufficient knowledge of general bacteriology to rationally treat a large majority of his cases from a clinical standpoint, and that he is not doing justice to himself or his patient if he does not give some time to the investigation of this subject.

Shaffer's Rheumatism Phylacogen, a modified vaccine, is now offered to us as the long-sought remedy for rheumatism. Whether it will prove to be of more value than a mixed vaccine, only time will tell. But if we are rightly informed, that rheumatism is a "shot-gun" infection, then, in this remedy, we certainly have an indication well met. My experience with it has so far been too limited to enable me to form an opinion, but I consider it worthy of further trial.

Bismuth paste, introduced by Emil G. Beck in 1906, is a remedy with which we are all familiar, and the timidity with which many general practitioners approach even this practically harmless preparation, is noticeable. Its value, in abscess cavities of the soft tissues, both acute and chronic, as well as its value in bone surgery, is now too well established to deserve further mention.

Salvarsan, with virtues still underestimated and dangers exaggerated, is a drug for us, and not a remedy for the exclusive use of the specialist. With lues as prevalent as it is in all classes of society, we find many who are unable to command the services of a specialist. We see them early, at a time when appropriate treatment will spare them suffering, and at the same time limit the spread of infection, so that it becomes our duty to be prepared to care for these cases. I am convinced, from the variety of cases I have treated, that many of the contra-indications, as originally laid down, should no longer cause the withholding from the patient the benefits of this treatment.

Neosalvarsan, now on the market, entirely removes the difficulty experienced in preparing salvarsan, as it gives the desired neutral solution in distilled water.

We can all be aseptic, the first requisite. Realize that our patient is an individual, not a case; also that there are different degrees of infection. Then select the method and dose, appropriate to the conditions and the result will be pleasing to both physician and patient.

It is impossible for me to go into detail with these suggestions. My hope is that I may have induced some other general practitioner to interest himself in these subjects and thereby gain the credit, and incidentally the profit, that has heretofore passed into other hands.

Special Article

HERETOFORE UNPUBLISHED RECORDS OF THE MEDICAL SOCIETY OF THE TERRITORY OF MICHIGAN

EDITED BY
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DETROIT

(Continued from page 117, February, 1913)

CHAPTER V.—DISCIPLINATION

The semi-annual meeting of June 9-10, 1824, was devoted to an investigation into the alleged misconduct on the part of Dr. Hurd. The wording of the description of the trial and events which follows is taken from the records. The arrangement is considerably changed and repetitions are omitted.

A series of events had occurred which were inconsistent with the high moral standard of the Society; they were widely known to the public and Dr. Hurd had been the center of each. It became therefore the imperative duty of the Society to ascertain the facts and punish if necessary.

The least important charge, not included in the accusation but brought out by testimony, was that in one case Dr. Hurd had taken charge of the illness of a patient of Dr. Henry's, saying that a sort of partnership existed between Dr. Henry and himself and four or five others so it would be the same if Dr. Henry attended. It was the impression that by partnership he meant the Medical Society. On the second case Dr. Hurd had been called but was not able to come immediately, so Dr. Henry went instead. Next morning, however, Hurd called, although notified that another had taken the case. He observed that Dr. Henry had left calomel; that it was a fashionable practice which he did not like, the intention of which was to *salivate* and by which the patient would be kept on her back for six weeks. Pursuing a contrary practice she would be well in five or six days. He also said that physicians in town generally charged high for visits into the country and that Dr. Henry had no other patient on the River Rouge, while he (Hurd) had several patients there and would divide the expenses equally. The family was poor and this latter argument won the case, even against the wishes of the patient's son.

The first charge of the accusation was relative to a serious accident. A certain resident of Grosse Pointe, nine miles from town, had purchased 12½ cents worth of jalap and emetic tartar from the shop of Dr. Chapin. He requested a sample, which was given him. Next morning he gave to his son, aged 19, and his daughter, aged 17, each a portion as he had received it (there being about four doses, containing 1/11th part each of the quantity purchased for 12½ cents.) Dr. Chapin thought the dose of each had been about 40 grains. The samples were dissolved in some water and they took most of the dose. They immediately began to "puke" severely and so took no more. After a short interval of rest the medicine again began to "puke and purge" them; the efforts of the mother to stop the effect of the emetic (or poison) failed and they both expired before help could be summoned. Dr. Hurd took away what remained of the medicine but did not have it analyzed. He thereupon recalled a similar case of some time before and spent some time about the country questioning the purity of Dr. Chapin's drugs, and by inference injuring Dr. Chapin's business. He would not, however, argue openly about it. It was stated that this same stock of medicine had been used both before and after the accident and found good.

The third incident was a personal encounter with Dr. Whiting, there having been for some time a strong personal enmity between the men, leading a year or so before to a lawsuit. The first encounter related was about a patient of Dr. Hurd's. After he had treated the person for some time, Dr. Whiting was asked to attend. The latter, however, considering the situation of affairs between them, was well convinced that no good would come of a consultation and he was reluctant to take charge of Dr. Hurd's case. He was informed that Dr. Hurd would be dismissed from further attendance, and on this understanding Dr. Whiting began his visits, which were favorably received. He found the patient with a severe pain in the right hypochondrium and at the point of the shoulder, but with a soft pulse and no fever present. Dr. Hurd had bled her the day before from which the patient observed that she felt great relief. She was all but suffocated, but as soon as bled she found great relief. As she had no fever and considering the state of the pulse, Dr. Whiting did not deem it necessary to bleed. Dr. Whiting then prescribed a large epispastic to the side, gave her a saline cathartic, and a number of doses of "nitre and tart emetic" to be taken at intervals of a few hours. The blister entirely removed the pain but several days later, when there was an exacerbation of the pain, she was bled again (presumably by Dr. Hurd).

Several days later both attendants met in the patient's house and a controversy ensued. Dr. Whiting had considered the case one of a chronic disease of the liver. Dr. Hurd alleged that he (Whiting) knew nothing of the complaint and that his treatment was evidence of it; he observed that it was a pneumonic affection (peri-pneumonia). Thereupon, in the presence of the patient, Dr. Hurd remarked that Dr. Whiting had come to his case unsolicited by the family, that he was an upstart boy, a quack and pretender, who knew nothing about his profession. He observed, that had Dr. Whiting's course of treatment been pursued she would have died. Language was used by Hurd which was improper in that place. The patient was much distressed and knew not what to do and Dr. Whiting was unwilling to be drawn into this unpleasant controversy, saying that there were other times and places where such things might be discussed. Later, Dr. Brown examined the patient and thought that she had had pneumonia but was then convalescent.

The second encounter was at the house of a young man laboring under a very violent attack of dysentery together with an erysipelatous eruption on the surface of the body, which also disturbed him greatly. Dr. Whiting was called in and observed exceedingly severe gripings and attending tenesmus. "After such an examination as I deemed necessary under the circumstances, I told the patient he must loose blood. He said that if I thought it necessary I might bleed him. Bowl, ligature, and bandage were immediately brought and on putting my hand in my pocket I discovered that I had not my lancet case with me." Dr. Whiting thereupon mounted his horse, rode home and returned with it. He found Dr. Hurd present but "addressing

myself to the sick man I told him he had better sit up while I took some blood from his arm. He rose up but immediately said he felt faint, when I told him that I would bleed him as he lay." At this Dr. Hurd went out, and remarked that it was very improper treatment which would make him worse and very likely kill him. The family then requested that he suspend the bleeding for a moment.

Dr. Whiting had not the stoicism to endure the abuse similar to that of the previous case, especially as it had been repeated several times before. He went out and told Dr. Hurd that the treatment was his own business, that he had been called first; the patient was his and the responsibility rested on his shoulders. He said that if he continued his insolence he would knock him heels over head into the street "but considering for an instant that he was a very small sample of a man, I changed the threat and told him I would wring his nose. He gave me some insolent answer and his nose got wrung." A general tussle ensued which ended in intervention by the neighbors. Dr. Hurd threatened a lawsuit and went away still muttering abuse. Dr. Whiting then went back into the house and bled the patient without meeting any opposition from the family. Three days later, the symptoms continuing, Dr. Henry was called in to see the case with Dr. Whiting. A vein was again opened on his advice "and the doctor held the pulse until he felt the change in it which convinced him that we had taken the requisite quantity." The patient recovered.

THE ACCUSATION

The accusation reads: "Whereas, by the Sixteenth Article of the By-Laws of the Medical Society of Michigan 'Any member thereof who is guilty of gross immorality may be reprimanded,' etc. And whereas, in numerous instances Dr. Ebenezer Hurd has violated the aforesaid article, in wilfully and maliciously falsifying and stating falsehoods respecting several members of this Society, he well knowing the same to be falsehoods at the time."

"The undersigned have, therefore, taken this method, which we believe to be the course pointed out by the 28th article of the aforesaid By-Laws, to bring the subject fully and fairly before the Society, whose duty it is to see that its ordinances are strictly adhered to by all its members and that any infractions of the same are properly punished."

The incidents are cited and the charge ends: "intending thereby to injure the professional reputation and character of him, the said Whiting, and calculated to impair the confidence of said ———— and his family in their physician, and in violation of that courtesy, urbanity and gentlemanly deportment which every member of this honorable profession ought to exercise in his intercourse with his medical brethren."

In the trial Mr. A. G. Whitney, Esq., was attorney for the Society and Mr. B. F. H. Witherell, Esq., was counsel for the accused.

After the testimony had been presented and deliberated upon, the members present made the following report:

"We are of the opinion that we are unfortunately so situated that there is no medium between reprimand and expulsion. The one we do not deem sufficient to meet the case as it exists,—the other we feel to be perhaps too severe. In this dilemma we adopt the opinion that a reprimand, not less severe than the full powers we possess will warrant, will better meet exigencies of the case than any other method we are authorized to adopt. Thereupon,

"Resolved, That the President of this Society be requested to reprimand Dr. Ebenezer Hurd in such manner and form as shall tend most effectually to augment the punishment thereby to be inflicted.

(Signed) A. Edwards,
V. Pres. and Pres. Officer.
Wm. Thompson,
C. Nichols,
Zina Pitcher,
Members.

And the Society adjourned.
Attest: John L. Whiting, Secretary."

CHARTER MEMBERS

There were in all ten physicians within the Territory in the year 1819 when the Society was organized. At Detroit there were Drs. William Brown, Stephen C. Henry, John T. Whiting, Ebenezer Hurd, Abraham Edwards, and McCroskey. Dr. William Thompson was at Mt. Clemens; Dr. Randall S. Rice and Dr. Luther Parker were at Monroe; Dr. John B. Chamberlin was at Pontiac. Of these, McCroskey, Chamberlin and Parker never became members.

Although young, Dr. Whiting was the leading member of the faculty (as those of the Society called themselves). He had made the trip to Detroit in mid-winter, arriving on February 26, 1817. For the three or four years previous he had studied medicine at Hudson, N. Y., and while there he became well acquainted with the organizations of the state and county medical societies, which had existed for about ten years. He was quick to see the advantages to be gained by uniting the physicians and legalizing their work, so he set out to copy what had been done in the older states. His plans met approval and were soon embodied in the Act of 1819, and in the meeting of the four men to elect officers and provide By-Laws. Dr. Whiting tells of the life at that time.

"I quit medicine to follow my new venture, which was most promising, in February, 1832, but I was compelled to return to it in July and work harder at it than ever I had in my life. The cholera had broken out.—The dreadful disease was brought to us by a vessel carrying troops to the Black Hawk war."

"I had just got down to my work at the dock when along came those troops with the cholera. One of the men died of a pronounced case of the Asiatic cholera, on the fourth of July. The military surgeon accompanying the detachment was so badly frightened that immediately on landing he betook himself to bed in the hotel. The commanding officer, thus deserted, then called upon Dr. Rice, an able physician and an amiable man, to attend the sick and Rice asked me to accompany him. I didn't care to go for I knew, though I had never seen a case of cholera, that it was frightfully contagious and rapid in its results and told Rice so. He urged that he had been authorized by the quartermaster to spare no expense in securing the most competent help and finally persuaded me to go with him. I told my wife, when I went home that Saturday evening, that I had been called on to attend the sick soldiers. She looked grave and sorrowful, but said, as it was a case of duty she could not ask me to back out."

"That night sixteen cases were brought ashore and placed in the quartermaster's store which had been converted into a temporary warehouse. Of the sixteen cases eleven proved fatal before morning."

"On the same day Dr. Rice had the sick call sounded and carefully examined every man in the detachment. To every one who showed predisposing symptoms of the disease, such as premonitory diarrhea, he administered a thumping dose of ipecacuanha and calomel, on the spot. It acted like a charm. There wasn't another new case in the command."

"The cholera visitation on the citizens came later in the year 1832 and imposed a vast amount of work on me. That of 1832 was confined mainly to the poorer class and swept off the intemperate and dissipated in large numbers. In 1834 it attacked an entirely different class, the wealthy, sober, temperate, church-going class. As in 1832, I was taken away from the commission business to attend the stricken and had to go out to Marshall, 100 miles, to attend to cases there, the cholera having hopped over from Ann Arbor."

"In 1825, the quartermaster insisted on my going to Saginaw to attend a sick garrison. The troops were suffering from malignant intermittent fever and at the end of three weeks I was knocked over myself. Dr. Zina Pitcher was the sickest of the lot. He had some 120 souls, sixty enlisted men with officers, laundresses and children, under his charge and all of them sick but one, with the most abdominably distressing fever imaginable. The garrison moved to Detroit in October. At that time I began talking to Pitcher of moving to Detroit for I had a fine opinion of him as an able physician and a fine man. In 1828 I began writing to him to induce him to take my place but I did not succeed until 1835 or 1836."

"As long ago as 1819, I commenced the foundations of a medical society among the few scattered physicians of the territory. We had three at the Capital and one respectively, at Pontiac, St. Clair, Mt. Clemmens and Monroe, and they all joined me. Long afterwards, when I had retired from practice and when the number of physicians was greatly increased, county and state societies were formed and Dr. Pitcher was one of the first presidents of the Wayne County Society."

"In 1828, General Cass called on me to accompany a treaty making expedition. I had to attend the Indian sick and as it was the season when green corn was in, they gorged themselves to repletion with it and of course suffered torments. As medicine man, with a couple of interpreters in constant attendance, they regarded me little less than a divinity and swallowed the most atrociously unpleasant draughts, with relish. To hear them smack their lips over rancid castor oil, which spoke for itself at long range, was a caution. A runner came in one day and in answer to inquiries, replied with gesticulations far more eloquent than words—'Munnominee sick like hel-l-l. Eat corn. Break up Munnominee purrow-purrow-o-o-of.' "

"I was appointed surgeon to the First Michigan Militia regiment in 1818. A Dr. Hurd was very anxious to displace me and spent a whole day with the general trying to get the position. The fact was he had been rather unsuccessful in Detroit and the pay was an object to him as much as the prestige was to me. In the long run I defeated him."

CHAPTER VI.—PIONEER PRACTITIONERS

In 1853, Dr. Whiting was at the Saulte when the cholera broke out and there was a panic to get away. One sick man thought he would be deserted by his friends but just as the boat was going, Dr. Whiting and Walter Chester entered his room. They said "You think you are not sick! You are! You think you are going this trip, on the boat! You are not! You think you are to be left here! You are not! We are going to stay with you until you get well."

Dr. William Brown was the eldest physician of the territory and had been there some years. He had been regimental surgeon, and was prominent in business affairs, as well as in his profession. Dr. Brown and Robert Smart "were Siamese Detroit old bachelors, living side by side, and so united in heart and soul, that whenever one took a drink of Scotch, the other smacked his lips, and when Brown snuffed, Smart sneezed."

Dr. Stephen C. Henry was in Detroit before 1815. Dr. Hurd came in 1819 and practiced for many years; in 1838 his office was in the basement of the northwest corner of Woodward and Congress St. Here he amputated a man's arm. The patient took the member in his remaining hand and swinging it round his head, exclaimed, "Hurrah for the Patriots; I am willing to lose another arm for the cause."

Dr. Randall S. Rice came to Monroe first, but later, in 1823, he moved to Mt. Clemens; then four years later to Detroit, where he remained for twenty years and became prominent and well known. When the cholera broke out in the thirties he became the leader in the fight against it and made an old church into a hospital. Dr. Whiting said, "Dr. Rice did wonders during both visitations; he was a man of great merit and quick as lightning." Dr. Rice emphatically remarked that everybody was dying or would die; that in 1832 he bled all his patients and cured them all, but "this year every patient bled has died and all my patients are dead."

Dr. William Thompson came from South Carolina and settled in Mt. Clemens in 1817, where he built a log house. He was the first physician of Macomb County. In 1820 he moved to Pontiac where he remained until 1832. When the cholera made its appearance in Detroit, Dr. Thompson went there to learn and procure means to combat it if it should spread. After a short while he was attacked and died.

Dr. Abraham Edwards obtained his license to practice in 1803. After a few years at Dayton, Ohio, he was put in charge of the medical department of Hull's army and also commanded 200 men; attaining the rank of major. He left Michigan after the war but returned again in 1815 and spent much of his time in government service. He was president of the first legislative council of the territory from its beginning in 1824 to 1831; he was high sheriff of Wayne County in 1824 and 1825. In 1832 he moved to Kalamazoo, where he became register of U. S. land office.

Dr. Marshall Chapin came to Detroit in 1819 from Massachusetts. He had studied medicine at Geneva and Buffalo, N. Y. He established and ran the first drug store of the territory, with a grocery store besides; within several years he married a Miss Hinchman and the store has remained in that family to the present day, now being the Michigan Drug Co. One day at the fort, where he had medical charge, a fire broke out on the roof. With considerable presence of mind and bravery he extinguished it; this act brought him into prominence and esteem and established his position in town. During the cholera epidemics, he was one of the few physicians to stay the progress of the disease and

really aid the sick. He gave fully twenty-two hours each day to this work but the strain injured his health so that he was never again well. He refused to take compensation from patients not readily able to pay. He was mayor of Detroit in 1831, and again in 1833, and lived on Woodbridge Street, then the fashionable quarter of town.

Dr. Harry Conant was born in 1790, a direct lineal descendant of Roger Conant, first colonial governor of Massachusetts. He came to Monroe in 1820 and went into partnership with Dr. Luther Parker, a much older man. In 1826 he was attending surgeon to General Cass. He was a public-spirited man who at his own expense erected buildings for a branch of the University of Michigan at Monroe. He also helped found a young ladies' seminary and established a whig paper. In 1824 he was sheriff of Monroe County and located a turnpike between Detroit and Pontiac. These duties soon became so numerous as to interfere with his practice, so he gave them up and devoted most of his time to his profession.

Dr. Cyril Nichols, in 1820, was the first physician to be examined and entitled to license to practice by the medical society. In 1826, he moved to the present site of Dexter and lived on the south bank of the Huron. He much preferred hunting deer to attending the sick and the latter often waited on the former. He did have, nevertheless, great success in handling bilious fever and ague, the prevailing disease of the country. Once he went out in charge of twenty men to arrest the son of an Indian chief, who had murdered a settler. The Indian sought to escape by running and dodging, but was quickly brought to the ground. In 1835 he attended one Charles Scott, in Clinton County, for inflammation of the lungs. He remained there constantly for four days and charged $50 for it.

Dr. Hemenger was an early resident of St. Clair with Dr. Chamberlin in 1829.

At that time, 1829, the prevalent diseases were fever and ague (malaria), typhoid and abdominal troubles. In a lesser degree there were measles, influenza and other epidemics, "propagated by the diffusion of a specific virus." Consumption was unknown and those who came with it got well. In diagnosis, the study of the pulse and the symptomatology were the only means at hand. The therapeutics consisted of the drugs, calomel, castor oil, opium, quinine, antimony, jalap, ipecac and tartar emetic; venesection; counter irritation, and hot or cold packs. Venesection was used in various illnesses and repeatedly done; for instance in pneumonia, this was imperative from four to six times depending on the pulse as indication of when to do it and also when to stop the operation.

TERRITORY COVERED

The physicians travelled on horseback and those from Detroit covered the territory to Trenton and to Baltimore Bay; to Malden and Belle River in Canada, a distance of 18 miles; to Romeo, Royal Oak, Pontiac, Wayne and even Tecumseh to the westward. These trips often took several days, the doctor following only a trail through the woods, sleeping on the open ground and eating explorer's fare, with plenty of strong tea. All the doctors were general practitioners in the fullest sense of the word; the surgery, however, was confined to accident wounds and amputations. Those who were inclined to do more scientific work, followed chemistry, botany, geology or studied the shape of Indians' skulls.

Malaria was endemic in Michigan in those days. It happened several times, as with the Saginaw troops, that practically every person of a small settlement would become so sick as to be unable to help even himself, and this condition of affairs would be kept up for several months. The fever and ague was an experience for each new comer, and when once used to it, a person would arrange his affairs so that he would be free to have his chill and fever every other afternoon. Fortunately it killed very few, if any.

The Indians in large numbers were victims of measles, influenza and other infections to which the white man was more immune. They used "vapor and cold baths combined" as a cure for fevers but in the opinion of Dr. Pitcher this treatment was not successful. He wrote, "I have ceased to believe that they are indebted to their mode of life for the vigor, as a race, which they exhibit, but that the feeble are destroyed by the vicissitudes to which they are exposed." A physician had been captured by the Indians and during his life with them he had occasion to bleed a squaw. It was very successful, so all the other squaws demanded the same attention, and sometimes he had as many as fourteen veins running at once.

The patients generally received the doctor's efforts for them in fine spirit and calmly accepted what could not be prevented. One, Johnny Moore, was told by Dr. Webb that he could not live long. "How long?" asks Uncle Johnny. "I don't think you will live more than two hours," said the doctor. "Damned short notice," says Uncle Johnny, "make me a brandy punch strong."

(*To be continued*)

INDICATIONS FOR CHOLECYSTECTOMY

1. Malignancy.
2. Hydrops of the gall-bladder.
3. Chronic empyema of the gall-bladder.
4. Gangrene.
5. When the cystic duct is not patulous.
6. When many small calculi are imbedded in the gall-bladder mucosa.—J. B. Deaver in the *New York State Journal of Medicine.*

APPENDICITIS

The intelligent physician who has watched the course of say only five cases of appendicitis, seen these five patients operated upon and viewed the conditions in the five abdomens and five appendices, will never subject a patient to the awful risk of a delayed operation or to the criminal folly of "medical treatment." It is only the practitioner unfamiliar with the pathology of the condition, who will, with medicines, "rush in where angels fear to tread."

The ideal time for an operation for appendicitis would be the day before the attack occurs. Could this time be determined there would be no mortality to the operation made by competent hands. The next best time is the earliest moment, day or night, that it can be done after the attack's onset. Patients do recover from *attacks* of appendicitis, seldom from appendicitis, without operation—many of them—but no man is skilled or experienced enough to judge, in any attack, whether, without operation, the patient will recover from it or whether gangrene, perforation, peritonitis and death will be the sequelae.—McKelway in *Delaware State Medical Journal.*

The JOURNAL
of the
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Subscription Price—$2.00 per year, in advance.

MARCH

Editorials

THE JOURNAL

In presenting to the membership and the profession in general this first number of THE JOURNAL under my editorship, it is but consistent with an established custom to outline my editorial policy.

At the very beginning I desire to state that no very radical changes are contemplated. I am conscious of the responsibility that has been bestowed on me and sincerely realize that I am expected to direct the affairs of my office and conduct its business in such manner as will best advance the interests and welfare of the Society in general and its members individually and collectively, so that in the end I may merit their approval. It is my intention to so edit THE JOURNAL that it will reflect the standing of the profession of the state, maintaining its every dignity; to make it of value to every recipient, so that he may obtain some direct benefit from every issue that he receives; to briefly, yet concisely and accurately, chronicle the advancement of general medicine and surgery and their various specialties; to keep the reader enlightened as to state and county society activities; to publish the medical news of the state and the profession; to conduct an editorial department devoted to comments on society and organization work, medical and social economics, medical and civic legislation, health problems and such other topics as current events may dictate; to secure a class of advertisers who cater to the needs of the profession, and to assure every reader that he may safely enter into business dealings with any one of our advertisers with the conviction that he is dealing with none but absolutely reliable parties.

With such a platform for editorial guidance before me, and with a fixed determination to carry it out to the very letter, I enter on the duties of my office as Secretary-Editor. I realize the fact that single handed and unsupported my endeavors will result in naught but dismal failure. I am, therefore, requesting the support of the members, societies and officers of our organization. This is your Society and your JOURNAL and I am your executive officer. Executive in the sense that I shall always be ready to carry out your wants, supply your organization needs, cater to your desires and be of material assistance in building up a stronger State Society—one that will reflect honor on the entire profession of Michigan. This support I ask of every officer, county society and individual member, and to them I pledge my loyalty, interest and service.

I wish to convey to the members my request for suggestions, comments and criticisms on the subject-matter of THE JOURNAL, as it appears from month to month. By receiving your suggestions I shall be able to meet your wishes; by knowing your wants I will endeavor to help you realize them; by securing your criticism, I shall be able to correct my errors and obviate their recurrence; and thus being brought into close contact with all the readers I shall be better able to present to them a publication in which they will feel a decided personal interest. A cordial invitation is extended to every physician to visit my office when in Grand Rapids.

THE INTERN YEAR

It is rumored that the Carnegie Foundation has given a partial promise to investigate and report on the hospitals, as was done in the case of medical schools in this country and abroad. If this be true, it certainly is welcome news, for such a report would do incalculable good in solv-

ing the problem of the fifth or intern year. If a fifth clinical year is to be added to the medical curriculum, it stands to reason that the medical schools should first know where they can place their students most advantageously during this clinical year. This knowledge can only be forthcoming through a careful and personal inspection of the hospitals by some one well qualified to judge of the institutions' educational advantages. This the Carnegie Foundation is able to do, since it has the means and experience gained from its former reports. Already the Council on Medical Education of the American Medical Association is beginning to realize that no adequate idea of hospitals can possibly be obtained through printed questionnaires filled out by the hospitals themselves. Even when honestly given, such information is apt to be misleading and unreliable.

Such a report as the Carnegie Foundation could give would do as much to startle the hospital world regarding what they are doing in an educational way, as the first report stirred up the medical schools. After the cries of indignation and the bluster ceased, the schools started to remedy faulty conditions. The same thing would undoubtedly happen in the case of the hospitals. It certainly would hurt the pride of a haughty five-hundred-bed hospital to be told in black and white that so far as educational advantages were concerned, it was a third-rate institution, and unless changes were forthcoming interns would be wasting their time on the services offered. If the clinical staff of such a hospital, through ignorance or indifference, chose to ignore such a report, the hospital trustees would not long remain quiet under such criticism. Very properly they would demand that the institution at once be placed among hospitals of the first class, and the staff would be forced to comply.

After the hospital educational data have been collected, the next step will be contracts between the medical school and the hospitals as to what the latter will furnish the interns in an educational way, and what the medical schools can furnish in return. The medical school never can be confident of keeping an intern, it has stood sponsor for, up to the mark until his diploma is withheld till the completion of the intern year and its bestowal made conditional on the kind of work the student has performed. When the fifth or intern year is a part of the medical course, it will secure from the medical faculty the attention its importance warrants. Frequent conferences between medical schools and the hospitals will lead to ideal intern services, so adjusted as to be equally advantageous to both. Differences of opinion between the hospitals and their interns would be settled by conferences between committees from the hospitals and the medical schools, thus doing away with open rebellion or strikes on the part of the intern staff.

What kind of students the different hospitals shall be entitled to, whether the interns shall be appointed by the different faculties or the selection be made through examinations, these and numerous other questions are mere details and can easily be worked out as the scheme is developed. R. P.

THE CANCER PROPAGANDA

A cancer publicity campaign was discussed at the New York meeting of the Clinical Congress of Surgeons of North America, and plans are now being formulated for starting the work. It is the thought of those who have the matter in hand to disseminate, among the people, information regarding the prevalence of the disease, its early signs, its certain mortality when neglected, and the necessity for prompt surgical measures when its presence is in any way suspected.

A few years ago an educational campaign among physicians was undertaken, the aim being to enlighten them as to the necessity of earlier referring cases of uterine carcinoma for operation. It was supposed at that time that many such cases were given local treatments until too late for successful operation. Such has probably been the case in the past, but we believe that, to-day, there are relatively few practitioners who are not keenly alive to the tremendous importance of an early diagnosis. We believe that the vast majority of family physicians no longer give local treatments in these cases, and that the fatal delay so often seen is due to the ignorance of the patients and of their family and friends. Hence it is evident that to be effective, an educational campaign must be carried out among the laity and not among the profession.

The important question to be solved, by the committee in charge of the work, is the manner and method of getting this information before the people. The first fact to be faced is that spasmodic effort will avail but little. To have an appreciable effect on the mortality of the dreaded disease, it will be necessary to "keep hammering away," year after year, now along one line, now along another.

Magazine articles will, of course, do much good, but it is to be remembered that only those in the so-called higher walks of life read the magazines. The great mass of the people, more especially in cities, read nothing but the daily news-

paper. If the daily press can be induced to take up the discussion of the problem it will accomplish much. They can probably be prevailed on to give it attention for at least a few days, for most of the papers are no longer under the spell of the patent-medicine interests, as was the case a few years ago. To be most effective, however, this must be kept up. Speaking from some experience, we can say that there is only one way to get the press to print the information repeatedly, and that is by supplying copy for "filler." In making up the columns of a daily paper, "filler" is constantly needed, an inch, sometimes 2 or more inches, being required to come out even. If funds were available to supply the press of the country with material of this kind which could be sent broadcast to the papers and "released" simultaneously, on certain dates, much of it would find its way into print. The short, pithy paragraph often receives more attention than the long article—another advantage of this method of procedure.

In the fight against tuberculosis and in the "swat-the-fly campaign," the moving-picture show has proved a splendid medium for imparting information. It would, however, require some ingenuity to adapt the cancer question to the moving-picture films, and we doubt if they could be successfully used.

What wonders could be accomplished by an extensive advertising campaign! Thousands of lives could be saved annually if we were greeted with information about cancer as frequently as we are about the purity of baking powder or the floating qualities of soap. Here is a field of splendid possibilities which our philanthropists have not yet touched.

There are three groups of people who are particularly liable to be consulted by individuals with minor ills: druggists, nurses and midwives. Cancer, in the beginning, is usually considered a matter of little importance, and what is more natural than for its victim to talk it over with acquaintances in one or the other of these groups?

If the patient is a man, he is apt to speak to his friend, the druggist or the drug clerk. A woman often talks it over with a nurse or a midwife. When this is not done in a friendly way, it is done semi-professionally. The druggist is asked for a salve for a skin sore and the midwife is consulted about a lump in the breast or an irregularity of menstruation.

For the consideration of the committee in charge of the work, we would submit the point that no greater returns can be secured in proportion to the outlay of money than to begin the campaign by disseminating among druggists, nurses and midwives information concerning skin sores, lumps in the breast and irregular uterine bleeding. The druggists can be readily reached, as can the nurses. Just how the midwives can be instructed we are not prepared to say. B. R. S.

THE TUBERCULOSIS CURE

The offer of $1,000,000, by the president of a New York City bank, is made if it can be demonstrated in New York that the so-called Friedmann serum will cure ninety-five out of every 100 cases of tuberculosis. This banker has offered to give $40,000 to defray the expenses of Dr. Friedmann's trip to America, the renting of a sanitarium and the expenses entailed in keeping 100 patients in this sanitarium for treatment with the serum. If the serum proves efficacious the balance of the million dollars will be paid to the discoverer.

On first thought, one feels that such a philanthropic and humanitarian spirit should not be permitted to pass without some grateful recognition, on the part of our American people, to so generous-hearted a person. However, on ascertaining more of the details in connection with this offer, we are inclined to view it from another standpoint.

The donor's conditions and plans may be briefly summarized as follows:

1. If the cure is efficacious, a permanent sanitarium will be established in New York and several others throughout the country.

2. The poor will receive free treatment, but the wealthy will pay.

3. The treatment will not be made public, because the discoverer says that "in the hands of a bungler it is as dangerous as a knife."

4. "I am not a rich man and the $1,000,000 will take all that I have," declares the donor.

We can readily see the possibility of the formation of a trust that will control the use of the serum in America, with the highest bidders and the moneyed patient getting the treatment in a sanitarium—a few extra frills being thrown in to make the patient believe that he is obtaining his "money's worth"—while a few poor patients will receive free treatment for the sake of effect.

With the prevalence of tuberculosis, the holding out of a promised cure (one that has received untold press publicity) to the sufferers from this disease, will result in the overcrowding of these sanitariums and the first year's receipts will bring ample returns on the money invested. What if the serum should prove ineffective? Data regarding its efficacy is still wanting. Our readers may draw their own conclusions.

We admit being skeptical, but not so without cause. The last ten years have seen many "cures" advanced for tuberculosis, all of which eventually failed to accomplish that which was claimed for them. This new serum may be one of these many. Its efficacy has not been established and German physicians have withheld their endorsement. It has not stood the test to which it should be submitted before being credited with therapeutic potency. If it is what it is claimed to be, why did not the discoverer follow the course of Ehrlich when he announced his salvarsan? An injustice may be done Dr. Friedmann in saying that he is anxious to make a fortune before disclosing his remedy, but the general impression is to the effect that he is suffering from an "itching palm."

These incidents are the grounds on which we base our skepticism and cause us to advise an attitude of "critical neutrality" on the part of the profession of the state. So much depends on the outcome that it is no more than right that every effort should be exhausted in a severe test to ascertain the value of the remedy. We sincerely hope the doctor has not been too optimistic.

Editorial Comments

Members sued or threatened should communicate at once with the chairman of the Medico-legal Committee, suggesting, but not retaining, a local attorney. Power to engage local attorneys rests entirely with our general attorneys. Complications have arisen in several cases and considerable trouble and unnecessary expense followed because members have not observed this rule.

Doctor, you have not done your duty if you have not invited your brother physician, who is not a member, to attend a meeting of your county society as your guest. Show and tell him what he is missing by not becoming affiliated with the county and state organization and then persuade him to file his application for membership with your secretary. You owe this duty to him, to your society and to yourself. Will you not make the effort to invite some non-member to your next meeting?

The Annual Meeting of the State Society will be held in Flint, September 4 and 5. Members desiring to present papers before the various sections are requested to communicate with the secretary of the section before which he wishes to read his paper. Do not permit this to be neglected until the last month and then be disappointed because the program is filled and room for your paper cannot be provided. Section secretaries are already actively engaged in arranging their programs, and early correspondence is solicited.

"Any patent medicine is a cure for a given disease, or it is not. If it is not a cure, it is false and criminal to sell it as a cure. If, on the other hand, it is what it professes to be, it cannot be much better than murder to withhold it from those who cannot purchase it, and to allow thousands, at a distance, to die from want of it, or if they did, live too far away to send for it in time. Let those who purchase these articles think of the argument and aid and abet no more, by their patronage, those who allow their fellow creatures to die by thousands every year, who would be saved (if what is said be true) by the knowledge of the remedy whose composition is so carefully concealed."

The advertisers of this Journal are reliable; they assist in defraying the expense of publication, and therefore merit your patronage and support. It is easy enough to persuade a business man to advertise, providing that you can show him whereby he is going to receive a fair financial return for his money thus invested. It devolves on our readers to show that Journal advertising pays. We will endeavor to maintain a class of advertisers that are absolutely reliable and who will be in a position to supply the wants of the physician, surgeon and specialist of to-day. Patronize them, tell them why you are doing so, and thus benefit not only yourself, but your society and its official publication.

A Query and Correspondence Department will be conducted whenever it is warranted. Such a department will endeavor to answer every question that is in any way of possible interest to the profession. They need not necessarily be confined to medical subjects. The only restriction is that they must be of interest to the profession. Should we not have the data at hand to answer these questions, an effort will be made to refer it to some proper authority. In order that your correspondence may receive space in the next issue, your letter should reach this office by the 10th of each month. Anonymous communications will be assigned to the waste basket.

Names will not be published if so requested. Your cooperation, to make this department of value, is solicited.

THE following rather interesting data were taken from statistics prepared by the Advertising Manager of *The Journal of the American Medical Association:*

DISTRIBUTION OF PHYSICIANS IN MICHIGAN

Towns of	No. Physicans	Physicians in State Per Cent.
1 to 500 inhabitants.....	592	13
500 to 2,500 inhabitants.....	879	22
2,500 to 10,000 inhabitants..	572	14
10,000 to 50,000 inhabitants..	821	30
50,000 or over, inhabitants...	1,231	21

Seventy-five per cent. of the physicians of the state reside in towns and cities of over 2,500 inhabitants; 25 per cent. reside in towns of 500 or less inhabitants; 4,095 physicians in Michigan; 136,835 physicians in the United States; 41 per cent. of Michigan physicians are members of the A. M. A.; 52 per cent., estimated, are members of the state society.

MEMBERS are reminded that dues should be remitted promptly. The following resolution was passed by the House of Delegates at the Muskegon meeting:

"We recommend that, at the close of the year's work in December, your society collect the annual dues in advance; that the delinquents have until April 1, or three months' grace, or be dropped from the state rolls, without further notice, at that time; and that a list of the members in good standing be published in the May JOURNAL."

If you as a member have failed to pay your dues, send your county secretary a check. Uncle Sam makes prompt delivery; writing a check and putting it in your pocket, thinking that you will hand it to the secretary the next time that you see him, may result in your forgetting it. Send him your check now!

The Editor has secured new advertising contracts to the amount of $425. This sum equals one-third of the entire advertising receipts for 1912, and is new business in addition to the contracts that are in force. This new business has a life of from three months to a year and it rests with the members to decide whether or not contracts will be renewed when they expire. I do not intend to commercialize our JOURNAL and reduce it to the plane of "Trade Journals." We do, however, need advertisements in order that we may be enabled to issue a first class journal. We will not have advertisements if the business man finds that our advertising columns do not pay a fair return on the money they invest in them. There is one "ad." that has been inserted in this issue that is an experiment. If this advertiser receives a fair number of replies in response to this "ad.," he has assured us a year's contract. In view of this, I desire to urge on our members to patronize our advertisers and tell them why you are doing so. Make it a point to read the advertising pages of every issue.

A SOCIETY for the Advancement of Clinical Study has been recently organized in New York City for the purpose of maintaining a bureau of information regarding the clinical facilities of the hospitals and laboratories of that city. For this purpose a bulletin board has been installed at the Academy of Medicine, 19 W. 43rd Street, in charge of a special clerk who will be on duty between the hours of nine and six to answer all telephone inquiries (telephone 974 Bryant). The bulletin board will consist of two sections, on one of which will be posted month by month, the regular clinics, medical and surgical, and also laboratory demonstrations, all of which are held at stated hours. The second section will include full announcements of daily operations and demonstrations of cases, both medical and surgical, which, as far as possible, will be announced on the day preceding their performance. It is believed that these facilities will afford physicians who are interested in observing particular operations, operators, or clinicians, an opportunity to attain the desired end with the least trouble. It is hoped that the clinical facilities of New York will be made more accessible to those who desire to make use of them.

THE following statement is taken from the annual catalogue of one of the largest mail order firms of this country and appears under the heading, "Why We Have Discontinued Patent Medicines":

"In our opinion the evils chargeable to patent medicines are likely to continue as long as these products have free access to the channels of publicity and trade."

In another part of this catalogue there is printed this legend:

"We guarantee that each and every article in this catalogue is exactly as described and illustrated."

Under the first quoted heading we also find this statement:

"We have come to believe that patent medicines do not conform to this standard; in fact, we are confident that those of our customers who have investigated the matter thoroughly will agree with us that, considered in all its phases, the patent medicine is a public evil."

We cannot permit such a pronouncement and declaration of future business policy pass without comment. When a business firm, composed of lay individuals, draws such conclusions and makes the foregoing announcement, we feel that the time is not far distant when the daily press will learn the same lesson, and in refusing the "patent advertisement" space in their papers, the secret nostrum trade will be eventually wiped out.

The proposed bill introduced in our State Legislature, whereby an automobile shall be taxed at a rate of 25 cents per horsepower, is a commendable one and worthy of every automobile owner's support. The bill provides that each automobile owner shall pay 25 cents for every horsepower unit that his car possesses, and that it shall be exempt from further personal tax. It is also provided that half of the amount collected by reason of such taxation shall be used to defray the expense of building state reward roads and the other half shall be devoted to road maintenance. This means that a person owning a 30 horsepower car will pay $7.50 per year, license fee, half of which goes towards good roads, the other half for maintaining these roads. At present, the car owner is paying a $3 yearly license fee, which goes into the general fund of the state, and in addition the owner is paying a tax on the assessed value of his car. Under the present system of taxation not a cent of money goes to road improvement or road work, while under the proposed new law it all goes toward building and maintaining good roads. Now that the motor car is playing such an important part in the practice of many physicians, they should support any measure that will improve our public highways and be enabled to reach the homes of their country patients over a system of roads that will be passable during the majority of the months of each year. If this law is passed—and it should be—it will be but a comparatively short time before Michigan can point with pride to its good roads; in the past we have been compelled to apologize every time that Michigan's roads were mentioned.

Are you one of the many who depend on their memory and their cash book to record their case histories? After all, it is a man's personal experience that is valuable. No one can depend on his memory for anything but generalities in case histories, and this memory will not be of scientific value when it comes to writing or discussing a paper. A simple case-record outfit can readily be found—one not so complicated but what the busiest man can keep it up to date with but a few moments' daily expenditure of time. These records will be valuable five, ten, twenty years from now, and your discussions and papers, based on a review of these histories, will be of more interest and will carry a great deal more weight than a desultory talk on generalities. A concise deduction of your experience with five, ten or fifteen cases, bearing on the subject under discussion, will be of more value to the members of your society than a discussion beginning with, "I remember a case I had fifteen years ago," and going on with a rambling, disconnected narration of symptoms which you are trusting to your memory to recall, and ending with, "Well, the patient finally recovered and I classed it so and so."

The future should see the elevation of the standard of society discussions and scientific work, and every energy should be directed toward that end. There is a lot of clinical material and data going to waste which should be utilized. The keeping of the histories of your interesting cases will obviate such waste and will enable you to collect and compile a wealth of valuable records. Commence doing it to-day!

State News Notes

Dr. T. M. Moll, formerly of Felch, is now located in Loretta, Mich.

Please refer to the advertisement of West's Drug Stores. It may be of interest to you.

Doctor G. M. Livingston has removed from Manistique to 2599 Woodward Avenue, Detroit, Mich.

Dr. T. A. Felch and family of Ishpeming have gone to Washington, D. C., for a two months' residence in the capital city.

Dr. Victor C. Vaughan of Ann Arbor, it is announced, will be reappointed as a member of the state board of health by Gov. Ferris.

Dr. J. A. De Kraker of Grand Rapids, who has been ill for the past six months, has gone to San Antonio, Arizona, for the winter.

Dr. R. E. Balch of Kalamazoo has been appointed by the governor as a member of the Board of Trustees of the Kalamazoo State Hospital.

Dr. Louis Barth has been appointed member of the Grand Rapids Board of Health to fill out the unexpired term of Dr. H. E. Locher, deceased.

The Phelps Sanitarium building in Battle Creek has been purchased by the Battle Creek Sanitarium and will be used as an annex to that institution.

Dr. Charles F. Smith, M.R.C., U. S. Army, has removed from Whitehall, Mich., to 2587 Woodward Ave., Detroit, where he has again resumed practice.

Dr. W. J. O'Reilly, health officer of Saginaw, has been appointed as official physician for the Saginaw Tuberculosis Hospital by the Board of Health of that city.

Dr. A. C. Roche, of Calumet, formerly of Livingston County, has been named as a member of the state pardon board to take the place of Dr. Bradley of Eaton County.

Dr. Frank B. Walker, Detroit, attended the meeting of the Congress of American Medical Colleges held in Chicago in February as delegate from the Michigan State Medical Society.

The Genesee County supervisors have adopted the recommendation of a special committee favoring the erection of a tuberculosis sanitarium in connection with the county infirmary.

Grand Haven citizens and members of the medical fraternity are endeavoring to secure sufficient funds for the erection of a hospital in that city. A ways and means committee has been appointed.

The Kalamazoo Anti-Tuberculosis Society has engaged a visiting nurse. Her services will be at the disposal of the poor, and is the latest branch of social service that is being conducted by that organization.

Acting on the suggestion of the state board of health, the Owosso common council is preparing an ordinance for rigid milk inspection. Requirements similar to those demanded by larger cities of the state will be put in force. Owosso has never had milk inspection.

Dr. A. Jacobi of New York City delivered two addresses at the Founders' Day of the Medical Department of the State University. One of the addresses was delivered before Dr. Vaughan's class in hygiene and the other in the evening in the Sarah Caswell Angell Hall.

Dr. E. P. Lockhart, a resident of Norway for the past thirty years and a member of the Dickinson County Medical Society, has accepted the position of physician and surgeon for the Verona Mining Co., at Palatka, this state. He will enter in upon his new duties on March 1.

Seeking to restore one of the first rights of home rule lost to Detroit, a bill has been introduced in the house to take from the governor of the state the right to appoint Detroit's health board. Since Pingree was mayor of Detroit the governor has appointed the health board of the metropolis.

Dr. John Fletcher, 529 South Park Street, Kalamazoo, who has been confined to his home for the past two weeks, with a severe attack of stomach trouble, is somewhat improved. Dr. Angus McLean, of Detroit, visited Dr. Fletcher and made a thorough examination. A favorable prognosis was given.

Judge Hosmer of Detroit announces that he will impose a jail sentence upon the "Doctors Kennedy & Kennedy" of Detroit, who were convicted on February 8 of having illegally advertised their business. A twenty-day stay of proceeding is the reason for the delay in pronouncing sentence.

The reports rendered at the annual meeting of the trustees of the Detroit Tuberculosis Sanatorium, showed the year's activities. Two hundred and sixty three persons were cared for during 1912. The land and buildings are valued at $90,000. Contracts for new buildings to the amount of $42,000 were awarded.

Dr. C. B. Burr, of Flint, is on a pleasure tour of Europe. As chairman of a special committee, appointed by the mayor to investigate the problem of garbage and sewage disposal in Flint, he has gathered considerable data and information in connection with the methods that are in vogue in Munich and Frankfurt, Germany.

A bill has been introduced into the legislature providing for a preliminary appropriation of $200,000 for the erection of a new state institution for the care of feeble-minded in Wayne county. With the inadequate provisions of the present senool in Lapeer, another state institution has become a necessity. This bill was introduced at the instigation of a special committee of the Board of Education of Detroit.

Just as our last copy was being prepared, we received the information that the chiropractors have secured the introduction of a bill into the legislature which, if enacted, will create a chiropractic state board. We are unacquainted with the provisions of the bill. The matter has been referred to our legislative committee who will undoubtedly call upon our members to assist them in defeating the passage of such a measure.

An educational campaign will be carried on by the Kalamazoo Anti-Tuberculosis society with the idea of securing the passage in the spring, of a bonding proposition to bond the county for $10,000, for the erection of a tuberculosis sanitarium.

The plan is to construct a hospital that will be large enough to take care of all the tubercular patients in the county and to give them the benefit of the latest accepted hospital or sanitarium treatment.

Wayne County elected the following delegates to the annual meeting of the state society: Drs. J. W. Vaughan, G. L. Kiefer, Walter Ford, J. E. King, E. W. Haass, W. J. Wilson, Jr., J. Stanley Miner, A. N. Collins, Hugo Freund, Ray Andries, R. C. Louks, J. E. Davis, and as alternates, Drs. A. D. Holmes, F. R. Robbins, Ray Connor, L. J. Hirschman, Angus McLean, Howard Longyear, R. E. Jamieson, R. L. Clark, H. W. Hewitt, C. G. Jennings, P. F. Morse, C. E. Simpson and J. H. Carstens.

To secure a more uniform standard of training for nurses in Michigan training schools, the matter of creating the office of an inspector of these institutions was considered at a meeting of board and committee members of the State Nurses Association that was held in Grand Rapids during the latter part of January. No definite action was taken. The annual meeting of the association will be held in Muskegon, May 4, 5 and 6.

The Jackson City Hospital trustees have asked for an appropriation of $30,000, to build an addition to its present building. Increased demand upon the hospital's facilities has occasioned this request. During the past year 997 patients were cared for; this being an increase of 359 over the number admitted five years ago. If the appropriation is secured, thirty private rooms and an additional operating room will be constructed.

The annual report of Grace Hospital, in Detroit, shows: 5,078 patients were cared for during the year, being an increase of 1,451 over 1911; average daily number of patients, 183, compared with 131 last year; expenditures for remodeling and equipment amounted to $14,060.35; total earnings, $155,327.06, with total expenses as $161,086.14. After February 1, the hospital will be able to care for 1,000 free dispensary patients per month. Extensive additions and remodeling are contemplated for this coming year.

Harper Hospital Association re-elected its entire board of trustees and house officers at its annual meeting that was held Jan. 28, 1913. The superintendent's reports show that 4,611 patients were admitted during the year at an average cost per patient a day of $2.54 or $17.78 per week; 4,169 operations were performed during the year; 991 ambulance calls were answered. The following executive committee of the staff was appointed for 1913: C. G. Jennings, M.D., Max Ballin, M.D., P. M. Hickey, M.D., Don M. Campbell, M.D., and H. W. Longyear, M.D.

At the annual meeting of the organization that is financing the new Detroit General Hospital, Dr. W. F. Metcalf gave an illustrated lecture on the hospitals of Europe.

The site for the new hospital is located at the corner of Hamilton and Grand Boulevards. The land and the buildings that have already been erected are valued at $500,000. The money subscribed amounts to $497,450. Additional contracts to the extent of $388,176, have been let. There are 150 men employed upon the present construction work. The contract for the surgical pavilion was let on Jan. 10, 1913. It is announced that a prospectus will be issued in the near future and the staff of the hospital will be made known at that time. When completed this will undoubtedly be one of the finest hospitals in this country.

Denouncing the "quack" doctors in general and the chiropractors in particular and advocating a requirement law for the medical profession, Governor Woodbridge N. Ferris started what he termed a "house cleaning" campaign in an address before the students of the Ferris Institute on Feb. 7, 1913.

The governor minced no words but went directly at the fake practitioners: "Michigan is the dumping ground for 'quack' professionals and I am going to ask the legislature to clean them up." There is no mistaking the governor's attitude on this matter and there appears every reason to justify the belief that he will urge the enactment of proper legislation to protect the public and rid the state of these chiropractors, who, as the governor says, "draw their victims from among the ignorant and the credulous."

Governor Ferris issued the following proclamation:

"Every child has the divine right to be decently born. It is worth while to recognize the laws of heredity and variation in producing the highest and most profitable types of flowers, fruits, grains and live stock. These have a marketable value. Man has a money value five times that of all other forms of wealth. We are busy enlarging our prisons and hospitals because we ignore one great source of crime and disease.

"On Eugenics Day, February 9, let every patriotic man and woman in the great state of Michigan give his best thought and most earnest prayers to the welfare of coming generations. The greatness of every state lies in clean, robust fatherhood and motherhood. The state has a right to demand a better race; has a right to eliminate the causes that degenerate and to establish firmly, working principles that will give to every one a fair chance to begin life at a decent angle and then make progress."

There is food for much thought in this proclamation.

An important step in the development of the plans of the Public Health Education Committee of the Kalamazoo Academy of Medicine was taken when plans were made for a series of eight lectures to be given on public health questions.

The talks, free, will be held in the Academy of Medicine rooms each Wednesday evening at 8 o'clock. Everyone interested in garbage, sewerage, disease problems, are invited to attended these lectures.

The subjects of the talks as outlined will be: first, "Mouth Hygiene;" second, "Social Legislation;" third, "Where We Live," taking up here sewerage and garbage question of Kalamazoo; fourth, "Heredity;" fifth, "Pure Food, Pure Drugs and Habit Forming Drugs;" sixth, "Care of Children;" seventh, "Contagion;" eighth, "City Hygiene."

The object of these talks is to promote public health and to bring forth municipal improvements. It is proposed to have several good speakers, men well posted on these subjects.

More stringent regulation of maternity hospitals will be required if a bill framed by Secretary Marl T. Murray of the state board of corrections and charities

is placed on the statute books. The bill provides that all lying-in or maternity hospitals shall first obtain a license from the state board of corrections and charities.

The bill provides that every applicant for a license to conduct such an institution shall be indorsed by six taxpayers of good moral character and that the hospital shall be used only for legitimate, moral and charitable purposes. The license shall be in force for one year, but may be revoked by board for any violation of the act.

In placing children for adoption, the managers of these institutions will be required to notify the county agent of the whereabouts of the child. He, in turn, will be required to visit each child at least once a year and determine whether or not it is being well cared for. However, upon adoption of the child, the visits of the county agent will cease.

During the past few years the visits of Secretary Murray to the various maternity hospitals have convinced him that drastic action of some sort is necessary. The manner in which children have been placed out for adoption has brought forth considerable criticism from the board. It shall be the duty of the person in whose home a child has been placed, under the provisions of this act, other than adoption, to notify the licensee whenever he shall change his residence, and no family having the custody of such a child shall have authority to transfer or place the child in another home.

Another bill has been framed by Secretary Murray making it unlawful for any person, society, association, or corporation of Michigan or any similar organizations of a foreign state to engage in the business of receiving, maintaining, or placing out minor children in homes in this state by indenture, adoption, on trial or otherwise, without first obtaining a license from the state board of corrections and charities. Also, a bill will be introduced giving the state board of corrections and charities greater power in condemning county jails and infirmaries.

Deaths

Locher, Henry M., M.D. Long Island Medical College, Brooklyn, N. Y., 1877. Member Kent County Medical Society and Michigan State Medical Society, President of Grand Rapids Board of Health. Coroner of Kent County, 1880-1888. For eighteen years member of Board of Education, ex-president of same board. Died at his home in Grand Rapids, Mich., Feb. 9, 1913, from chronic Bright's disease.

Thoms, J. C., M.D. University of Michigan, 1898; of Muscat, Arabia; died at Muscat, Arabia, following an accident, aged 41.

Dr. Thoms was a medical missionary and for several years was manager of the hospital at Bahre, Arabia. In 1911, while in America on furlough, he pursued a postgraduate course at the University of Michigan. He was considered an authority on tropical diseases and fevers.

Edwards, Eliphalet G., M.D. McGill College, 1855; honorary member of the Michigan State Medical Society and the Kent County Medical Society; one of the oldest practitioners of Grand Rapids; died at St. Mary's Hospital in Grand Rapids, on Jan. 18, 1913, from pneumonia, following an operation for strangulated hernia, aged 80.

Dr. Edwards graduated from McGill College, Quebec, in 1855, and was one of its oldest graduates. Shortly after his graduation he was appointed surgeon for the British army, serving during the Crimean war. After his return from the war he was appointed surgeon for the Grand Trunk Railway. Later he served a term of years as president of the College of Physicians and Surgeons of Ontario, and for twenty years he was a member of the medical council of Ontario.

He came to Grand Rapids in 1883 and was engaged in active practice until stricken with his last sickness. During his residence in Grand Rapids he was the recipient of many honors from the profession and the community. He was dean of the Grand Rapids Medical College, during its existence; member of the Board of Health, president of the Kent County Medical Society. He is survived by three sons, all of whom are physicians and practicing in Michigan.

Resolutions on the Death of Dr. Abraham Goodfellow

Dr. Abraham Goodfellow was cut off in the full strength of young manhood. His kindness and gentleness were mixed with a sturdy honesty, and a high sense of duty endeared him to his medical colleagues. His patients loved and respected him. His devotion to duty and the arduousness of a busy country practice undermined a rugged constitution in ten years of practice. He loved Nature; the streams and the birds spoke to him the language of friendship and love. Nature reflected to him his own temperament.

He was the friend, the adviser of the poor; and the more fortunate in worldly goods sought his counsel. His judgment was not sought alone in his professional capacity, but also in the political, social and business management of his county. He was the ideal citizen. His family almost worshiped him.

He was a successful and skilful practitioner and took an active part in the discussion of medical subjects in our county society.

Resolved, That a copy of these tributes to the man, that in the death of Dr. Abraham Goodfellow we have lost one of our most active and valuable members and one whom we shall greatly miss. Be it further

Resolved, That while no word of ours can assuage the grief and anguish of his family, we extend to them the heartfelt sympathy and condolence of his fellow practitioners.

Resolved, That a copy of these tributes to the man, the friend and the fellow practitioner be sent to his family.

G. V. Chamberlain,
M. S. Knapp,
H. E. Randall,
Committee Genesee County Medical Society.

Society Proceedings

FIFTH COUNCILOR DISTRICT MEETING

The annual meeting of the Fifth Councilor District, composed of Kent, Ottawa and Barry counties, was held in Grand Rapids on Feb. 3, 1913. The meeting was called to order at 2:30 p. m., by Councilor DuBois, with sixty-two members present.

The following papers composed the scientific program: "Some Nervous Affections of the Heart," Eugene Boise, M.D., Grand Rapids. This paper was discussed by Drs. Johnston, Corbus, Graves, Butler, (Chicago), and Spencer.

"Cervical Ribs." Dr. Perry Schurtz, Grand Rapids, presented a patient in which two supernumerary ribs were present. The patient was examined and the condition was discussed by Drs. Hulst, Campbell and Hamman.

"Experiences in Surgery of the Stomach and Intestines," by Carl A. Hamman, M.D., Professor of Surgical Anatomy and Clinical Surgery in the Western Reserve University, Cleveland. Dr. Hamman's paper, one of exceeding interest, was discussed by Drs. Graves, Fuller, Vandenburg, Smith, Hulst and Schurtz.

With the completion of the scientific program, a recess was taken and the members met again at 7:00 p. m., in the banquet hall of the Pantlind Hotel, where an enjoyable hour was spent in partaking of the excellent dinner that had been prepared. Cigars lighted, the diners were entertained by Dr. George F. Butler, Chicago, who responded to the subject, "A Few Thoughts on the Sane Prevention of . . . or insane? . . . The Insane and other Sane. First One Thing, then Another." . . . It was one of Dr. Butler's characteristic after-dinner addresses.

In spite of the bitter cold weather, the attendance was good; the papers and discussion were interesting; and those present unanimously voiced the sentiment, "a good time and a good meeting."

E. W. Dales, Acting Secretary.

DETROIT OTO-LARYNGOLOGICAL SOCIETY

The regular meeting of the Detroit Oto-Laryngological Society was held Jan. 21, 1913, Dr. Livingston in the chair.

Dr. White reported a case of syphilis of the nose in a child. The paper was discussed by Drs. McFall, Amberg, Wilson, and E. L. Shurly, the latter of whom spoke of the late manifestations of syphilis.

Dr. Amberg reported a case of dislocation of both lower lateral cartilages of the nose.

Dr. Milton Watson, by invitation, gave an illustrated lecture entitled: "A Brief Review of the Cryer[1] Theory of the Relation the Tongue Bears to Mouth Breathing."

Abstract: Lantern slides were shown where the bony development of the nasal chambers was nearly or quite normal, yet the patients were confirmed mouth breathers, owing to the restricted dental arches forcing the tongue back into the oro-pharynx and thus pressing the soft palate up and back against the post-pharyngeal wall. It will thus be seen that the only possible relief in such cases is to provide a normal tongue space by enlarging the dental arches.

The discussion was participated in by Drs. F. E. Cutler, Mercer, Wilson, and E. L. Shurly.

Dr. F. E. Cutler of Cleveland, an invited guest, read a paper entitled, "The Importance of Early Recognition of Capsulated Cocci in Acute Otitis."

Abstract: To-day we divide acute otitis into two principal groups: those due to capsulated cocci infections and those due to non-capsulated cocci infections. The cocci to be considered are, the streptococcus, diplococcus of pneumonia, streptococcus mucosus and the mixed strepto-staphylococcus. Under the head of non-capsulated cocci, we find, broadly speaking, the streptococcus and staphylococcus, and under the black flag of the capsulated cocci we find the streptococcus mucosus and the diplococcus of pneumonia.

It would be very interesting, if practical, to make a culture in all cases, but on account of the time necessary, etc., it is much easier and more practical to make the smear, which suffices.

To make the smear, methylene-blue, carbol-fuchsin and a freshly prepared aqueous solution (concentrated) of thionin are necessary. Methylene-blue stains the staphylococcus and streptococcus very well. Carbol-fuchsin shows the capsule of the pneumococcus. Thionin is the best stain to show the capsule of the streptococcus mucosus, especially when the freshly prepared aqueous solution is used.

The streptococcus mucosus appears in pairs and short chains, round and unusually large when compared with others.

Dr. Cutler reported two cases.

The paper was discussed by Drs. Morse, Amberg, Connor, Gleason, Potter, Beattie and Wilson.

The society expressed their thanks to Drs. Cutler and Watson for their papers.

Emil Amberg, Secretary.

[1] M. H. Cryer, Philadelphia.

BAY COUNTY

A meeting of the Bay County Medical Society was held on Tuesday evening, Feb. 4, 1913. At 6 o'clock, a complimentary dinner was given to Dr. Angus McLean of Detroit, who later spoke on the subject: "Cancer and Ulcer of the Hollow Viscera of the Upper Abdomen." The paper was illustrated by a number of colored lantern slides and drawings.

Abstract of Dr. McLean's Paper.—The leading symptoms of ulcer of the pylorus are pain and vomiting. We have viscero-sensory reflexes followed by viscero-motor reflexes, causing rigidity. Pain one-half hour after eating, blood in the vomitus, and increased hydrochloric acid are prominent symptoms. In duodenal ulcer, vomiting is absent, pain 2 or 3 hours after eating, blood in the stools, stomach findings practically normal, as there is no abnormality of the mucous membrane and no interference with the exit of food. In cancer of the fundus there is no interference with the exit of food, hence no vomiting, little pain, lactic acid and diminished hydrochloric acid, cachexia. In cancer of the pylorus there is obstruction, hence vomiting, blood in the vomitus, other symptoms about the same as in cancer of the fundus.

In cancer of the gall-bladder pain is less marked, cachexia is present, no jaundice. In cancer of the common or hepatic duct there is progressive jaundice, comparatively little pain, cachexia is present.

In ulceration of the gall-bladder or cholecystitis we have pain, biliary attacks due to the passage of mucus, no jaundice, tenderness on pressure, chills and fever.

The treatment of ulcer is medical and surgical. Rest, diminished secretions, light albuminous diet, with the administration of bismuth constitutes the medical treatment. Surgical treatment consists of possible excision or gastro-enterostomy. Other conditions spoken of to-night, except ulcerated gall-bladder, are always past treatment before diagnosis is made.

In general we may say, "Men for ulcers and women for gall-stones." Pain followed by vomiting indicates trouble somewhere in the hollow viscera. Vomit-

ing without pain is usually central. The *x*-ray and bismuth are of great value in the diagnosis of the conditions under discussion.

The paper was discussed by Drs. Ballard, Hauxhurst, Tupper and McLurg. In closing the discussion Dr. McLean said that he favored an exploratory incision under gas or beta-eucain in many cases of stomach trouble in men over 40 years.

A rising vote of thanks was extended to Dr. McLean for his visit to the society and for his interesting talk.

The Bay County Medical Society met as the guests of Dr. F. E. Ruggles, at his home in Bay City, Tuesday evening, Jan. 28, 1913, at 8 o'clock.

Dr. Paul R. Urmston read a paper on, "The Diagnostic Importance of Pain in the Head and its Treatment."

Abstract of Dr. Urmston's paper.—"If we remember the fact that all the infectious diseases are ushered in with headache, due to toxemia, we can assume that in pathological conditions of the hollow viscera pain may be referred to the head. Although eye strain is the most common cause of frontal headache, we must not overlook the fact that sinus infection and pressure of the turbinate bone, especially the middle, is a more common cause of pain and headache than we realize. Always examine the nose and throat carefully when your patient complains of pain in the frontal and temporal regions. Glasses will not cure all headaches. Latent infection following acute otitis media may cause mastoiditis several years later."

The paper was very freely discussed. Dr. Ruggles served a buffet luncheon which was greatly enjoyed by the twenty-five members who were present.

H. N. BRADLEY, Secretary.

BERRIEN COUNTY

At the annual meeting of the Berrien County Medical Society, held at Benton Harbor, the following officers were elected:

President. N. A. Herring, M.D., Benton Harbor; secretary, Carl A. Mitchell, M.D., Benton Harbor.

N. A. HERRING, President.

BRANCH COUNTY

The annual meeting of the Branch County Medical Society was held at Coldwater, Jan. 21, 1913. The following officers were elected:

L. W. Howe, M.D., president, Coldwater.

B. W. Culver, M.D., secretary-treasurer, Coldwater.

B. W. CULVER, Secretary.

CALHOUN COUNTY

A scientific meeting of the Calhoun County Medical Society was held at the Chamber of Commerce rooms, Feb. 4, 1913, at 2:30 p. m. The program was as follows: "Salvarsan," by Dr. Berten M. Davey, Lansing; "Foreign Bodies in the Eye," Dr. Wilfrid Haughey, Battle Creek; "The Employers' Liability Law and Its Relations to Physicians," John S. Prescott, L.B., Battle Creek.

A little pamphlet which is being sent to our members by the society, contains the following information regarding officers and committees for the year 1913; officers, S. K. Church, president; E. L. Eggleston, vice-president; A. F. Kingsley, secretary-treasurer; R. D. Sleight, delegate to state society; and W. H. Haughey, alternate delegate; board of directors, W. H. Riley, G. B. Gesner, S. R. Eaton, W. D. Marsh and R. D. Sleight; committees, Program, A. F. Kingsley, J. J. Holes and G. C. Hafford; Necrology, J. C. Brown, G. B. Gesner and J. L. Ramsdell; Entertainment, S. P. Eaton, R. D. Sleight and R. M. Gubbins.

A. F. KINGSLEY, Secretary.

DELTA COUNTY

The Delta County Medical Society has resumed its monthly meeting program, alternating between Escanaba and Gladstone. The last meeting was held at the latter place, Friday afternoon, Jan. 10, 1913. A "Symposium on Diphtheria," was presented. Participants of the symposium were: Dr. A. H. Miller, Gladstone, and Dr. Wm. Elliott, Escanaba. The papers and attendant discussion produced a very interesting meeting.

The Delta County Medical Society continues in a flourishing and active condition.

H. W. LONG, Sec.

EATON COUNTY

The Eaton County Medical Society met in the Temple Theater, Charlotte, on Jan. 20, 1913, Dr. Rand presiding.

Dr. F. A. Jones of Potterville and Dr. H. C. Rockwell of Diamondale, were elected to membership. The applications for membership of Dr. K. B. Rees of Bellevue and Dr. C. D. Huber of Roxana, were received and referred to the membership committee.

Dr. Richard R. Smith of Grand Rapids gave a very able and comprehensive address on "Symptoms, Diagnosis, Operation and Treatment of Gall-Stone Disease." Dr. Smith's talk was illustrated by lantern slides. It was shown, by the doctor, that an early diagnosis and surgical treatment were the two essential factors in the management of this disease. The paper was ably discussed by Drs. W. H. Haughey and R. C. Stone of Battle Creek, and Drs. Stimson, Stealy, Newark, Sheets, Sassaman and Sackett.

The attendance was large and the meeting of considerable interest.

C. S. SACKETT, Secretary.

GENESEE COUNTY

A special meeting of the Genesee County Medical Society was held Jan. 7, 1913, at 8 p. m., in the St. Celia Hall to arrange to attend the funeral of Dr. Abraham Goodfellow of Clio, a director of the Genesee County Medical Society.

A floral contribution was collected and eight honorary pallbearers were appointed. The chair appointed a committee on resolutions consisting of Drs. Chamberlain, M. S. Knapp and H. E. Randall.

Dr. Manwaring read a paper on "Surgical Judgment" and exhibited some pathological specimens.

Dr. F. A. Roberts demonstrated the "pulmotor."

The regular quarterly meeting of the Genesee County Medical Society was called to order by President Bates in the Masonic Temple at 3 p. m., Jan. 8, 1913.

On recommendation of the board of directors, Drs. F. E. Reeder, Guy D. Briggs and R. S. Morrish were elected members.

Following the business meeting Dr. Max Ballin of Detroit gave an interesting lecture on "Diagnosis and Surgical Treatment of Spastic Paralysis and Tumors of the Spinal Cord." Dr. Ballin's paper was illustrated by lantern slides. Dr. Wheelock opened the discussion.

On motion of Dr. Tupper, Dr. Ballin was given a vote of thanks and elected an honorary member of the Society.

C. P. Clark, M.D., Sec.

GRAND TRAVERSE COUNTY

The February meeting of the Grand Traverse-Leelanaw Medical Society was held Tuesday evening, February 4, in the offices of Dr. E. B. Minor. Following the business session Dr. F. B. Lawton read a paper on "Bronchial Pneumonia in Children, Its Management and Treatment." Dr. G. L. Fenton of Kingsley then gave a brief talk on "Amputations and Complications Following."

Dr. J. M. Wilhelm invited the Society to hold its next meeting in his offices.

James A. J. Hall, M.D., Sec.

KENT COUNTY

The regular semi-monthly meeting of the Kent County Medical Society was held on Jan. 8, 1913, at the Board of Commerce Chambers.

Dr. W. H. Metcalf of Detroit presented an interesting paper entitled, "The Planning and Construction of a Hospital." Dr. Richard R. Smith reported a case of Intra-Uterine Fracture.

The regular semi-monthly meeting of the Kent County Medical Society was held at the Board of Commerce Chambers on Jan. 22, 1913.

A very practical paper on "Intratracheal Insufflation, Principles and Uses," was read by Dr. J. J. Fabian.

Abstract: This subject is arousing considerable interest in various parts of the country, especially in the east, where at some of the best equipped hospitals this method of anesthesia is practiced as a routine procedure in all intrathoracic operations about the head. This subject is of considerable interest to the general practitioner, as well as the specialist, from the standpoint of resuscitation, for which purpose a special apparatus, the pulmotor, has been devised. The pulmotor has gained considerable publicity as a result of its successful use in a large number of cases.

The intratracheal method of anesthesia was first practiced on the human being at Mount Sinai Hospital, New York, by Dr. Charles Elsberg, on Feb. 21, 1910. The case was one of empyema thoracis and since this time it has become quite the preferred method in suitable cases at this institution, as well as in many others.

Dr. Fabian demonstrated, on a dog, the intratracheal insufflation method. He reported 7 cases.

Drs. Hutchinson and R. R. Smith discussed Dr. Fabian's paper.

The Kent County Medical Society held its regular semi-monthly meeting at the Board of Commerce Chambers, on Feb. 12, 1913.

A paper on "The Practice of Medicine and Surgery in China," was read by Dr. Herman Barlow, a medical missionary, and was listened to with interest.

Dr. Theo. C. H. Ableman, of the Michigan Soldier's Home, presented a paper on "The Treatment of Trigeminal Neuralgia by Superficial Injections of Osmic Acid and Alcohol." Dr. Ableman's paper was particularly practicable because of his large experience along this line, among the old soldiers at the Michigan Soldier's Home.

Dr. W. H. Veenboer opened the discussion on Dr. Ableman's paper.

E. W. Dales, Secretary.

MONTCALM COUNTY

The annual meeting of the Montcalm County Medical Society was held in Greenville on Jan. 16, 1913. There was a good attendance in addition to several physicians from Ionia County. The following papers were read: "The Differential Diagnosis and Treatment of Cholelithiasis," Dr. Burton R. Corbus, Grand Rapids; "The Pathology and Etiology of Cholelithiasis," Dr. Henry Vandenburg, Grand Rapids; "The Practice of Medicine in Chi-Kiang Province, China, with Comparison of Eastern and Western Methods," Dr. Claude J. Barlow, Medical Missionary to China.

The first two papers were thoroughly discussed by nearly all the members in attendance. Dr. Barlow's paper was of great interest and revealed the difficulties that a medical practitioner in China has to contend with.

The following officers were elected for the ensuing year: president, Dr. L. E. Kelsey, Lakeview; first vice-president, Dr. M. E. Danforth, Stanton; second vice-president, Dr. D. K. Blank, Greenville, third vice-president, Dr. A. B. Penton, Smyrna; secretary-treasurer, Dr. H. L. Brower, Greenville; delegate, Dr. M. E. Danforth; alternate, Dr. F. A. Johnson.

H. L. Brower, Sec.-Treas.

ST. CLAIR COUNTY

The regular meeting of the St. Clair County Medical Society was held Thursday afternoon, Jan. 16, 1913, in the parlors of the Hotel Harrington.

The society was entertained by very interesting and scientific papers, read by Drs. I. R. Polozker and Angus McLean, Detroit.

Dr. Polozker's paper was entitled, "Meningitis," and he treated the subject with special reference to the cerebrospinal form, together with differential diagnosis by means of spinal puncture and treatment by means of serum.

Dr. McLean spoke upon "Ulcer and Carcinoma of the Hollow Viscera of the Upper Abdomen," placing especial stress on ulcer and carcinoma of the stomach and duodenum and carcinoma of the gall-bladder.

The following officers were elected for the ensuing year: president, A. L. Callery, M.D., Port Huron; vice-president, Christopher McCue, Goodells; secretary-treasurer, R. K. Wheeler, Port Huron.

R. K. Wheeler, Sec.

ST. JOSEPH COUNTY

The St. Joseph County Medical Society met in the east room of the library building on Jan. 30, 1913, with a goodly number of members in attendance, and with Dr. R. E. Dean, acting as president. Dr. C. E. Boys and Dr. A. H. Rockwell, councilor, Kalamazoo, were outside visitors at the meeting.

Dr. Boys and Rockwell described the work of the Kalamazoo Academy of Medicine.

Clinical case reports of unusual interest were presented and discussed.

The annual election of officers resulted as follows: president, Dr. R. E. Dean, Three Rivers; vice-president, Dr. W. C. Cameron, White Pigeon; secretary-treasurer, Dr. S. R. Robinson, Sturgis; delegate, Dr. J. H. Moe; alternate, Dr. V. Runyan; member defense league, Dr. F. W. Robinson; councilors, Drs. M. Sabin, D. V. Runyan and Sabin.

S. R. ROBINSON, Sec.-Treas.

TUSCOLA COUNTY

The regular meeting of the Tuscola County Medical Society was held at the Hotel Montague, Caro, Mich., on February 10; the vice-president, Dr. R. H. Steinbach, presiding.

Dr. Bates presented a case of syphilitic skin lesion, of peculiar interest, for clinic, and Dr. Bender presented a boy of 10 years having complete transposition of the thoracic and abdominal organs.

Dr. William J. Stapleton of Detroit presented a paper entitled, "Notes on Life Insurance Examinations," which was especially instructive and which was thoroughly discussed.

An extensive report of the work of the medicolegal committee for the past year was given by Dr. Seeley.

W. C. GARVIN, Secretary.

WAYNE COUNTY

The Wayne County Medical Society held its regular meeting Monday, January 20, with the president, Dr. Haass, in the chair. Dr. R. L. Clark, secretary.

Dr. Arthur Dean Bevan, of Chicago, read the paper of the evening on "The Surgery of the Gall-Bladder and Bile Ducts." The real credit of the beginning of gall tract surgery belongs to Marion Sims in 1878. He was followed by Tait and others. The first good article in English was by Dr. Musser, reporting the first thirty-five cases treated by himself and Dr. Keen in the early eighties. He reported only ten deaths in this series. There has been an enormous change since this time.

About 10 years ago it was thought that gall-stones were due to a mycotic cause; second, factors favoring stagnation, and thirdly, a tendency to stone formation. Now pure cholesterin stones are thought to exist without any bacterial infection. The element of pregnancy is a very definite favoring cause. Only a few of these cases can be traced to the typhoid bacillus. The usual germ is the colon, mixed with the streptococcus and staphylococcus.

The *x*-ray shows a number of stones. Common duct stones have been demonstrated by the *x*-ray. Too much confidence should not be placed in the *x*-ray in the diagnosis of gall-stones. The stones are first a putty-like mass before a definite stone is laid down. The facets are due to pressure during the formative state and not due to friction. William Mayo and Moynahan have recently come out with the statement that gall-stones without symptoms are myths. The author thinks the great majority are symptomless. A gall-stone, giving rise to symptoms, is usually associated with tension. This is even more true of kidney stones. A case was cited in which the intense pain of stone in the ureter was instantly relieved by the slitting of the kidney and relieving the tension.

A male under thirty with the symptoms of gall-stone disease usually has duodenal ulcer. Kidney stone is also a source of error in making the diagnosis of gall-stone disease. Carcinoma of the colon has also been mistaken for gall-bladder disease. Hydatid cyst of the liver has been mistaken for gall-stone disease. Syphilis of liver sometimes separates off a lobe of the liver much like a gall-bladder. Syphilis of the liver may give a fairly complete picture of gall-bladder disease. Ileus has been confounded with gall-bladder disease.

The study of 650 cases shows there is a proper medical management of gall tract disease. Many of these cases are practically silent or with trivial symptoms. The relief of the stagnation and proper treatment may give long freedom from symptoms. Many other cases, however, demand prompt surgical treatment. The most of the cases treated surgically were subjected to cholecystectomy. The practice now is becoming more and more to cholecystectomy. It is not a very difficult matter to operate for gall-stone disease. There are refinements, however, which are missed by the ordinary surgeon. The exposure of the bile tract is of great importance. The incision is a straight one through the middle of the rectus. This can be extended above toward the median line and the lower away from the median line. This gives little paralysis and the least danger of hernia.

The choice of an anesthetic is of considerable importance. Crile has advocated gas and oxygen. Ether is, however, in good surgical uses, a much better and safer anesthetic. Nitrous oxid is dangerous where the heart is bad. It is good with nervous patients with good hearts. Local anesthesia is very useful when properly used. Novocain in ½ per cent. solutions can be used to advantage combined with ¼ grain of morphin and 1/150 scopolamin. The mortality has been about 2 per cent. In cholecystectomy the mortality is only slightly higher—about 3 per cent.

Pneumonia has been responsible for some deaths. Fatal embolism and paralytic ileus are also among the causes of death. Jaundice is a symptom which should postpone operation. Some cases are much safer with non-operative treatment than when operated upon. Low hemoglobin, jaundice and sepsis are good reasons for postponing operation. Urotropin and salicylates have been found in the bile and are possibly some good in treatment. Fully 80 per cent. of the cases, where there is dilated gall-bladder and jaundice, are due to carcinoma or chronic interstitial pancreatitis. No one can make a diagnosis between carcinoma of the pancreas and chronic interstitial pancreatitis. It is not safe to remove a piece from the pancreas, as the patient may die from hemorrhage.

This development of gall-stone surgery is on a par with the development of appendicitis and is a triumph of modern surgery.

DISCUSSION

Dr. McLean has found the *x*-ray only reliable when there is a lot of calcium in the gall-stone. Most cases of carcinoma of gall-bladder have a history of gall-stones and hence these stones should be removed.

Dr. Carstens examined his operative cases for gall-stones and only found two cases of gall-stones in five hundred cases operated for other causes. Hence he doubts the frequency of gall-stones as reported from some autopsy tables. There are not so many gall-stones as are claimed. The stones usually give symptoms. The stones are not always associated with sepsis. Many simple stones can be removed and the gall-bladder then sewed up.

Dr. F. B. Walker finds the history is of value in differentiating gall-bladder cases from duodenal ulcer. Those cases beginning before thirty are usually due to ulcer.

Dr. Bevan in closing called attention to the large series of pathological examinations, in which 10 per cent. of gall-stones were found. The duty to these cases is to make the diagnosis early and remove the part of the tract which is diseased. The cholecystectomy gives much better final results and carries not very much greater danger.

Dr. Vaughan moved a vote of thanks to Dr. Bevan. Carried.

Dr. McLean moved that Dr. Bevan be made an honorary member of the Wayne County Medical Society. Carried.

The regular meeting of the Wayne County Medical Society on February 3 was turned over to the Entertainment Committee.

Mr. Hughes, who visited Africa as historian with a party organized in behalf of a syndicate of newspapers, took the members on a trip through British East Africa. An extremely interesting and instructive talk was given, illustrated by beautiful colored lantern slides and moving pictures. The party went from the coast by the Uganda Railway to Nairobi, where the expedition was outfitted. The outfit consisted of four ox-carts drawn by 16 pairs of oxen and no less than 400 porters. Practically all of British East Africa aside from a strip of 100 miles on the coast is highlands. In consequence, in spite of the fact that the country is on the equator, the climate is far from uncomfortable, and the nights are even cold. The Uganda Railway runs through one of the greatest big game countries in the world, and it is no unusual thing for the train to have to stop until the wild animals are driven from the track. Some interesting views of wild animals taken from the train were shown.

An expedition after game is called in Africa a Lafari, an Arabian term. This one was elaborately made. Telescopic cameras, a balloon, kites from which cameras could be suspended and many other things were included in the equipment. The endurance of the native porters was almost beyond belief. In spite of the fact that they were small men, weighing about 125 pounds, these carriers would support 60 pounds on their heads and cover sometimes as much as 23 miles in a day. One of the unique things shown was the picture of a complete native village taken from kites. Cattle are the chief treasure of these natives, and six of them or forty goats suffice to purchase a wife.

A typical day on a Lafari begins at sun up, about six o'clock in the morning. After a bath in the private bath, which is attached to each tent, breakfast is served consisting chiefly of an ostrich egg omelette. Then a hunt of 3 to 4 hours is undertaken and then luncheon. After this a short rest is followed by some more hunting until 5:30, when camp is made again. Another bath and dry clothes before dinner help to keep off the fever. The regular treatment against fever in Africa requires 15 grains of quinine on the first of the month, followed by 15 grains on the second and two more doses of 15 grains on the 15th and 16th, making 65 grains every month. This makes the ears ring, will for 4 days in the month, but proves fairly efficient against the fever.

The sleeping sickness region was visited and pictures of cases in the various stages of the disease shown. No cure as yet has been found for such cases and certain islands have been completely depopulated by the disease. The missionaries have accomplished a great deal of good amongst the natives, making many converts and changing many ideals.

The society passed a unanimous vote of thanks to Mr. Hughes. Refreshments were served in the dining-room.

The Surgical Section held its regular monthly meeting Monday evening, January 27. Dr. F. B. Walker acted as chairman and Ray Andries secretary. Dr. R. L. Clark presented a case of cerebral injury successfully operated on by Dr. Hewitt. An extradural clot was removed at operation. The symptoms cleared up rapidly after operation. Dr. Hewitt presented an appendix from a little girl which sloughed away a few days after opening and draining an appendiceal abscess.

Dr. H. W. Yates presented the paper of the evening on "Puerperal Sepsis."

Three points in the Prophylaxis of Puerperal Fever was the subject of the paper presented by Dr. H. Wellington Yates. The first was that of personal cleanliness, that obstetrics was surgery pure and simple and in as near as we adhered to surgical principles in the managements of our confinements just in that proportion would we cut down both mortality and morbidity.

He intimated that personal cleanliness did not consist in the free use of carbolic, lysol, etc., but that in the man himself there must be a repugnance to dirt. He showed that hospital environment had done much to lessen the morbidity in puerpera and urged upon the profession to send maternity cases to the hospital. The unpreparedness in the confinement room was the cause of puerperal infection. A physiological labor was often made pathological through emergency which was often made necessary in a bad environment. Since all cases should be looked upon as surgical, preparation to that end should precede all confinements.

About forty or fifty lantern slides were shown, giving the comparative statistics before and after the adoption of the doctrine brought out by Holmes and Semmelweis, also pictures of a room in a home made ready for labor and many positions of the patient while obstetric care was being given her, finishing with pictures showing the lymphatic distribution and the more likely and usual places and manner of infection.

The paper was illustrated by lantern slides. A number of views of Semmelweis and Oliver Wendell Holmes were shown. Charts showing the immediate and remarkable improvement in mortality following Semmelweis' teaching were demonstrated. Various expedients in the proper conduct of labor in the home were suggested by pictures. Other illustrations of the anatomy and pathology of the parts were shown.

Dr. Judd opened the discussion. The death-rate has not reduced since the aseptic era except in hospital practice. Dr. Manton called the attention of the society to an article recently published in the *Medical Record* wherein auto-therapy was advocated by Dr. Duncan. Dr. Armstrong finds it much easier to persuade the patient to go to the hospital now than a dozen years ago. Dr. Carstens thinks cleanliness can be overdone. Too much washing and douches may be injurious, unless properly done. These patients should not be handled and examined too much. There is such a thing as auto-intoxication and hence the doctor and nurse cannot be blamed for every case of puerperal sepsis. Dr. Bell reported a case of puerperal sepsis due to a streptococcus finding a point of entrance in

the throat. The blood culture is a step in advance in the prognosis. A hemolytic-streptococcus found in tne blood stream gives a bad prognosis. Dr. Hislop spoke of the protective nature of the natural secretions. Dr. Welz spoke on the diagnosis of the forms of puerperal sepsis. Most cases are due to some injury to the birth canal. The use of ergot is of service in such cases. Where the infection has gone beyond the uterus, it is important to know whether it is limited to the adnexa or has entered the blood stream. A localized abscess gives less sharp variations in temperature than septicemia. Dr. Spitzley pointed out the seriousness of obstetrical practice. Surgical cleanliness is of the greatest importance and is best secured by mechanical means. Antiseptics have worked more harm than good. They should not be relied upon. Dr. Davis feels that we have not made the advancement in obstetrics which we should have made. A man ought not to do obstetrics unless he has been surgically trained. There is no such thing as auto-intoxication, but the infection must have a source if traced far enough. Dr. Matthews thinks there is more puerperal sepsis than is ordinarily thought. Many women show a thickening of the parametrium following a low infection at time of confinement. You can often find metastases in these septic cases, such as septic pneumonia, phlebitis, peritonitis, etc. Dr. Yates closed the discussion.

The regular meeting of the Medical Section of the Wayne County Medical Society was held Monday evening, February 10. In the absence of the chairman, Dr. E. W. Haass presided. Dr. J. H. Dempster, Secretary.

The attendance was approximately one hundred. The program consisted of a symposium on diseases of the blood. Dr. W. N. Donald spoke on "Pernicious Anemia," which he considered much more frequent than was commonly supposed. Many instances of sudden death where the cause was undiagnosed might be attributed to pernicious anemia. Dr. Donald presented a number of lantern slides showing fatty heart and liver in this condition.

Secondary anemias and chlorosis were discussed by Dr. George P. Myers. Low color index is the keynote of the blood-picture in these anemias. The blood-changes range from slight loss of coloring matter in the corpuscles to very marked diminution in the number of corpuscles with severe degrees of poikilocytosis and pressure of erythroblasts. The more severe the anemia the more nearly does the blood picture resemble that of pernicious anemia. Yet in almost every case there are sufficient points of difference to distinctly separate the two conditions. The history and objective symptoms are valuable aids to a correct diagnosis. In the final analysis the most distinctive point in the differentiation of chlorosis is the fact of its occurrence in young girls associated with menstrual disturbances.

Dr. A. F. Jennings presented the subject of Lymphatic and Myelogenous Leukemia. A hyperplasia of the lymphoid or myeloid element of the whole blood-forming system; clinically by an increase in number and change in morphology of the white cells in the blood stream. The increase may go as high as a million per c.mm., but is generally about several hundred thousand. The change in the white cells is due to the appearance of those which precede the normal leukocytes in course of development from the embryonic cell.

The white corpuscles fall into one of two classes. The first contains granules and consists of the polynuclear cells and their ancestors. They are affected in myeloid leukemia. The other has no granules and consists of lymphocytes. They are affected in lymphatic leukemia. These groups remain separate in health and disease. The youngest cells of the two groups are very similar in staining and morphology. The myelogenous leukemia. It may occur in dwarf form and contains either neutraphi eosinophil or basophil granules. The pathological lymphocytes show variations in size and shape.

The diagnosis can only be made by blood examination. The symptoms are very misleading. They include pallor, weakness, purpura, hemorrhage, tumor masses, fever, septic sore throat, ulcerations of mouth, diphtheritic membrane, edema, ascites, vomiting, diarrhea, acute abdominal pain, gangrene, neuralgia, paralysis, drowsiness and coma. There are most all explained pathologically by the presence of great numbers of white cells. The symptoms are the same in the lymphoid and myeloid forms. Each has a chronic course of years with the patient enjoying life, and an acute course of weeks, malignant and fulminating. There are intermediate types and at the end the chronic course simulates the acute.

Chloroma pseudoleukemia and lymphosarcoma are genetically related to leukemia.

Prognosis is fatal.

Treatment consists of use of x-ray in chronic cases. Care must be taken that no exposures be given if the cells are normal or below in number or there is increase in the per cent. of non-granular cells.

Dr. E. W. Haass presented a paper on "Polycythemia."

Polycythemia is a chronic disease characterized by a peculiar cyanosis of the face, extremities and the mucous membranes and by an increase in the number of the red cells in the blood. It may appear secondary to certain conditions such as congenital heart disease, mediastinal tumor, and in high altitudes, when it is best termed erythrocytosis. Again, it may appear as a primary clinical entity of unknown origin, best termed erythremia.

Erythremia was first described by Vaquez in 1892, as a chronic disease of middle life, characterized by a peculiar cyanosis and increased red cell production, and often by splenomegaly. Red counts of nine and ten millions are not unusual. The highest observation has been thirteen millions. The hemoglobin content is usually 120 to 150 (Sahli), highest 240.

It is slow, progressive in character, with a tendency toward remission. There is a great increase in the total quantity of blood and a definite evidence of bone marrow activity (post-mortem). Treatment is of little avail. The arbitary reduction in number of red blood-cells appears to afford most relief.

Dr. W. J. Wilson, Jr., reported a case at present under observation of pernicious anemia with unusual features. The diagnosis was made in the usual way. The patient was a married woman 35 years old, of poor stock, but of good personal history with the exception of an abortion some 5 years ago. The onset was gradual, increasing weakness with dyspnea on exertion. The mucous membranes are blanched, the sclera pale and pearly, systolic murmur in cardiac area, venous hum over large pulsating jugulars, yellowish hue, hyperesthesia over lower half of body, no patellar reflexes. Dr. P. F. Morse report on the blood, Dec. 31, 1912, showed megaloblasts 3.33 per cent., nor-

moblasts 1.33 per cent., total red count 1,570,000, very marked poikilocytosis, anisocytosis, and polychromatophilia. Pulse tracings show regularity of heart's action, the jugular pulse vein being very large, the external jugular giving tracings showing the usual wave diversions. Unusual feature, one-fourth body surface leukodermic, and helping to substantiate the claims of those who believe that, in contradistinction to Addison's disease in leukopathia we have an excessive functioning of the adrenals, a systolic blood-pressure of 145 mm., diastolic 75 mm., while in the usual case the typical finding would be, for example, sbp. 88, dbp. 68.

Correspondence

To the Editor:—I am undertaking an exhaustive research into the pathology, etiology and dietotherapy of diabetes mellitus. I am very anxious to hear from every physician in the United States who has a case under treatment, or who has had any experience in the treatment of this disease.

Von Noorden says: "The best treatment for the diabetic is the food containing the greatest amount of starch which the patient can bear without harm." If any physician who reads this has similar or contrary experience and would take the trouble to write me, I would deem it a special privilege to hear from him.

William E. Fitch, M.D.,
355 W. 145th St., New York City.

Lansing, Mich.

To the Editor:—There has been some confusion in the minds of the officers of county medical societies and the members of the Public Health Education committees, owing to the fact that these chairmen are chairmen not only for the county, but also for the State and National Committees on Public Health Education.

To clear up this misunderstanding, it is thought advisable that the marked portion of the enclosed letter from Dr. Eleanora S. Everhard, National Chairman, be published in the Journal.

Very truly yours,
Clara M. Davis, M.D.

The letter referred to is as follows:

Dec. 17, 1912.

Dear Dr. Rutherford:—In reply to a letter from your committee, sent to me by Dr. Davis, Lansing, I will give the plan of organization which seems to me to be the logical one, and for which we are working in every state at the present time.

This would be for each county society to have a committee for public health education; for each state society to have a committee which should coordinate the work in the counties and give assistance where necessary; for one member of the state committee to be appointed as the representative of the state committee on the American Medical Association committee, the duty of this last committee to be to coordinate the work in the states and to make known in one state those things which have been found most useful in others.

The county society is, of course, preeminent in its own field. The appointment of the committee must be left to that organization. The state committee may rightfully urge on the county societies the appointment of such a committee and may arrange a plan for general state work.

So as to avoid duplication of work and loss of time, and at the same time to bring into close coordination the work of the American Medical Association committee and that of the state committee, we have urged the state chairman to appoint as county chairman one member of the committee appointed by the county medical society; this member to report to the American Medical Association chairman all work done in the county, and to make known to the county committee the suggestions which the central committee have gathered from the work in other states.

If the work had been carried on in the counties by the American Medical Association county chairman before the appointment of a committee by the county medical society, that county chairman, who was also a member of the county medical society, ought to see to it that the proper kind of a committee is appointed, and if such county chairman has done acceptable work, in the vast majority of cases, he or she will be made a member of such committee. Whether or not the work done has been acceptable enough to merit such appointment by the county society, I believe should be left to that body to decide. Many states are now organizing according to this plan.

In Ohio the situation is met in this way. The chairman of the state committee has written the president of each county society, asking for the names of the county committee. If no committee has been appointed, he asks for its appointment. When the names of the committee are sent in the state chairman then writes the chairman of the county committee, giving him or her, as the case might be, the appointment of county chairman on the American Medical Association committee. Where the American Medical Association county chairman already working was not given as a member of the committee that person has been written to, asking why a committee was appointed without recognition of her work, and she has been told that in order to bring the work under a common plan it is desirable that a member of the county committee be chairman for her county. The matter is then left to her to work out with her county society.

If her work has been of little value and she is not put on the county committee, she will be dropped and a member of the county committee will be appointed. If she has accomplished more than is promised by the committee in the county society, she will be retained and will be asked to get the county committee to cooperate with her.

Committees are not so formidable as they sound when you remember that after all they are composed of members who are in most cases on friendly terms with all the other members of the county society who are in good standing.

I am enclosing a copy of a letter which I am sending to Dr. Solis.

If this does not clear up the situation in Michigan, please let me know at once.

Very truly yours,
Eleanora S. Everhard, Chairman.

County Secretaries' Department

IT is my intention to devote this department to the discussion of problems of the county secretaries. Inquiries that have a bearing on the work of every county society will be given publicity in this department of THE JOURNAL. The county secretaries are invited to freely correspond with the state secretary regarding the problems that they have to contend with in their individual societies. It is to be hoped that this department will be of material assistance and that it will be the means of bringing about a closer relationship between all the component societies of our state organization and their officers.

I do not intend, nor will I ever attempt, to interfere with the activities of the county society or its officers. My conception of the office of state secretary is that it should be a clearance bureau, subservient to the component societies of the state, where information may be given and received; where state records may be compiled and kept, and where suggestions may be made for the welfare of the entire state organization. I would like to have every county society official and member feel that this office and its facilities will be ready to furnish any information or assistance which they may be pleased to demand of it. With this brief statement as to the object of this department, I trust that I may receive everyone's cooperation and thus make it of distinctive value.

EVERY secretary is requested, in fact he is urged, to send me a full report of every county society meeting. I would suggest that these reports be composed of: the place and time of meeting, the presiding officers and number of members in attendance, business transactions and resolutions adopted, essayists and the titles of their papers, a brief synopsis of the paper and the discussion it received, social functions and reports of all committee activities. Society news will be made one of the features of THE JOURNAL, and every county secretary is expected to be a collaborator in this department.

In addition to the society report, I will appreciate the sending of any news items or personals having bearing on all subjects relating to the profession in your county. Personal news items are especially requested. Finally, do not neglect to send me notices of deaths and removals.

These reports of county meetings will enable every secretary to become enlightened as to the work that is being done by other societies, and he may thus be stimulated to add interesting features to the programs of his own society and thereby build up the organization work in his respective county.

THE following inquiry has been received:

"1. Is it compulsory for the county society, as a whole, to keep up medical defense? 2. Can individual members keep it up if the society, as a whole, does not? 3. To what extent and how does it protect a member?"

Answer.—1. Under the present By-Laws, the dues of the State Society are $3 per year. This money is expended, under the direction of the Council, for the defrayment of society expense, for the publication of the JOURNAL, and for medical defense. The amount placed in the Defense Fund is $1 per year, per member. Such an appropriation is used for the defense of our members, and, if it should prove insufficient, additional funds will be appropriated by the Council from the general fund in the treasury. No member pays a special assessment for medical defense; on the contrary, he pays annual dues to the State Society which are disbursed by the Council.

2. It is believed that medical defense is not feasible, on an optional basis, without a great increase in the annual per capita expense. Insurance companies are charging $10 to $15 per year for the same protection.

3. The Medicolegal Committee, in consultation with the member asking for protection, will secure the evidence of the case; provide competent counsel; will try the case in court, appealing to a higher court, if necessary, thus protecting all his legal privileges and interests. This service is rendered free of all charges for attorney service and court costs, providing that the member's dues have been paid and that he was in good standing at the time that the services were rendered for which he is being sued or threatened with suit. The Defense Committee will not pay any judgment that may be rendered against a member in court, but will exert every effort towards securing a verdict of "No cause for action."

Comment. — For additional information, I would refer the secretary to the annual report of our Medicolegal Committee. This report gives a résumé of the entire work of that committee since its organization.

COUNTY secretaries are reminded that dues should be collected and promptly remitted. You are reminded of the following resolution that was passed by the House of Delegates at the Muskegon meeting:

"We recommend that, at the close of your year's work in December, your society collect the annual dues in advance; that the delinquents have until the first of April, or three months' grace, or be dropped from the state rolls, without further notice, at that time; and that a list, of the members in good standing, be published in the May JOURNAL."

This action, taken by the House of Delegates, renders it imperative that all dues for 1913 be in my hands by April 10. Will you not make a special effort to remit the dues of your members on or before that date?

If you have failed to receive the new supply of monthly report blanks and receipt books, please notify me and they will be supplied to you.

In the transferring of the records of our society from Battle Creek to Grand Rapids, our attention was particularly drawn to the fact that a majority of the secretaries' reports were undated. This made it difficult, and entailed considerable labor to check up the records. County secretaries are requested to date every report that is sent in and to itemize their remittances on the blanks that are provided. Postal regulations prescribe that we must keep subscription orders on file for inspection, in order that the Journal may be admitted into the post-office as second class matter. Please observe this request in the future.

This office will mail membership certificates and cards direct to the members, and a duplicate receipt for each member will be mailed to the county secretary.

If you have an invited guest at any of your meetings, or if any of your members has an interesting paper, I would recommend that you secure these papers and forward them for publication in the Journal. Interesting case reports are also solicited. The editor can always use—in fact, he is often in want—every good paper that is sent him.

In drawing checks in payment of state dues, please have them read "Michigan State Medical Society."

Book Notices

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume 1, Number VI (December). Octavo of 153 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published Bi-Monthly. Price, per year: Paper, $8.00. Cloth, $12.00.

The year's series, of these valuable clinical reports, is completed with this number. Pelvic Infections, Metastatic Gonorrheal Arthritis, Patella Fractures, Tenoplasty for Obstetric Palsy, and Ankylosis of the Temporomaxillary Joints, are the prominent features of this number. Professor Bastianelli's discourse and scientific analysis of the problem of mammary carcinoma enhances its value.

To one who has been without this series, for the past year, we can offer but one suggestion—secure them. The 1913 series gives promise of equal if not greater value.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M.D., president of the American Proctologic Society, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and rewritten second edition, 338 pages. Royal octavo, 132 illustrations, including four colored plates. The C. V. Mosby Co., St. Louis, Mo. Price, $4.00.

The first edition of Dr. Hirschman's book met with a hearty reception at the hands of the Medical Profession. The present edition has been entirely rewritten, forty new illustrations, including two colored plates, have been added, and the entire book has been reset. This is preeminently a book for the general practitioner. It is written in the hopes that this class of the medical profession will arouse themselves to the possibilities of this line of work and not allow the charlatan and the advertising quack to take from them work which can be done by the legitimate practitioners of medicine. To that end special attention has been paid to office work in rectal diseases and the part that *local anesthesia* plays in this class of work.

Psychanalysis: Its Theories and Practical Application. By A. A. Brill, Ph.B., M.D. Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $3.00 net.

This work covers a field which everyone in general practice needs. Psychanalysis is a new field for the general physician. It is true he cannot spend much time with this specialty, but if he has a general working idea, such as this book will give him, he will certainly deal much more intelligently with his patient.

The author has liberally quoted from Freud and other students in this line and shows himself to be a clear reasoner and has an exceptionally pleasing way of writing, making the book readable. The chapters on psychopathology of everyday life, psychanalysis, and the psychoses are especially apt and valuable to the physician. We safely commend this book to the general practitioner as well as the specialist.

Golden Rules of Surgery. Vol. I of the Golden Rule Series. Especially intended for students, general practitioners and beginners in surgery. By Augustus Charles Bernays, A.M., M.D., F.R.C.S., Eng., Life Member of the German Society for Surgeons of Berlin, Chief Surgeon Lutheran Hospital and for twenty years Professor of Anatomy and Surgery, St. Louis. Second Edition, revised and rewritten by William Thomas Coughlin, M.D., Asst. Prof. of Surgery, Chief of Clinic, St. Louis University Medical School, St. Louis. 280 pages. Octavo. C. V. Mosby Co., St. Louis. Price, $2.25.

The entire absorption of a large first edition of the Golden Rules of Surgery made necessary the issue of the present one. Its enlargement and elaboration by the junior author has made it possible to cover the entire field of surgery in a thorough and systematic manner, at the same time preserving the character and style that made the first edition of this book popular.

In reviewing this volume, one is struck with the force of each statement, showing that the authors have weighed well the idea to be conveyed and have striven to present the thought to the reader in a convincing manner.

One is surprised to find cardinal principles enunciated in a sentence, which in ordinary text-books and systems can only be found after carefully dissecting page on page. It can be truthfully asserted that to read this little volume over and over will so acquaint one with the fundamental truths of surgery that a viewpoint of this science and art will be obtained that will redound greatly to the credit of the reader.

The publishers announce that other volumes in this series will follow rapidly—on Gynecology, Diagnosis and Treatment, Pediatrics and Obstetrics.

A NEW WORK ON THE HISTORY OF MEDICINE. W. B. Saunders Company, publishers, Philadelphia and London, have in active preparation a work on the History of Medicine by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and Editor of the *Index Medicus*. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the Surgeon-General's Office, fit him most admirably for such a work as this.

His book will present the history of medicine from the earliest ancient and primitive times; on through Egyptian Medicine, Sumerian and Oriental Medicine, Greek Medicine, The Byzantine Period; the Mohammedan and Jewish Periods, the Medieval Period, the Period of the Renaissance, the Revival of Learning and the Reformation; the Seventeenth Century (The Age of Individual Scientific Endeavor), the Eighteenth Century (The Age of Theories and Systems), the Nineteenth Century (The Beginning of Organized Advancement of Science), the Twentieth Century (The Beginning of Organized Preventive Medicine). There will also be Appendices covering Medical Chronology, Histories of Important Diseases, Histories of Drugs and Therapeutic Procedures, Histories of Important Surgical Operations and Bibliographic Notes for Collateral Reading.

Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

The illustrations are intended to stimulate the reader's interest in the picturesque aspects of medicine and in the personalities of its great leaders. The biographies will be confined to the most important facts and to interesting personal traits. The original bibliographic references to the important discoveries, operations and experiments will be given. Each period is to be followed by a brief survey of its social and cultural phases. Altogether it promises to be a most important addition to medical literature. We await its publication with much interest.

New and Nonofficial Remedies

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

VACULES CORNUTOL contain cornutol 30 c.c. in sealed ampules. The air in the container is removed before sealing whereby, it is claimed, deterioration is retarded. H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

SODIUM GLYCEROPHOSPHATE (sodii glycerophosphas) is hydrated sodium glycerophosphate, $Na_2(C_3H_5(OH)_2)PO_4 5\frac{1}{2} H_2O$, containing not less than 99 per cent. of hydrated sodium glycerophosphate. It is crystalline, quite soluble in water, but insoluble in alcohol. Its properties and dosage are similar to those of calcium glycerophosphate (see N. N. R., 1913, p. 118).

SODIUM GLYCEROPHOSPHATE, MONSANTO, is a nonproprietary article and complies with the tests laid down for sodium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

VACULES DIGITOL contain digitol 30 c.c. in sealed ampules. The air in the container is removed before sealing, whereby, it is claimed, deterioration of digitol is retarded (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

SINCE January 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Vacules Digitol (H. K. Mulford Co.).
Sodium Glycerophosphate (Monsanto Chemical Co.).
Staphylococcus Pyogenes Aureus Vaccine (G. H. Sherman).
Staphylococcus Pyogenes Albus and Aureus Vaccine (G. H. Sherman).
Penumococcus Vaccine (G. H. Sherman).
Meningococcus Vaccine (G. H. Sherman)
Isatophan (Schering & Glatz).
Isatophan Tablets (Schering & Glatz).
Hediosit (Farbwerke Hoechst Co.).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicine, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

SOME FOODS AND DRUGS IN 1912.—That the forces devoted to the maintenance of high standards in American food and drug products are still alert and progressive is shown in the latest annual report of the Connecticut Agricultural Experiment Station. The need of a continued vigilance in the enforcement of food and drug laws is best shown by the statement that "of 757 samples taken by the commissioner under the law, 372 were found to be either adulterated, misbranded, or below standard." The general unsatisfactory character and the misleading claims which are made for so-called gluten foods is pointed out. Of the proprietary medicine family many of our old acquaintances receive a deserved exposure. There is Gouraud's Magical Beautifier, Spiro Powder, Poslam, Dr. Franck's Grains of Health coated with real silver and selling at $33 per pound, Pink Pills for Pale People, Kargon, Schenck's Pulmonic Syrup, Thialion, Ely's Cream Balm, Cubanos, Dr. Pierce's Golden Medical Discovery made from a veritable botanic garden, Peruna and the A. D. S. tribe, Rheumatogen, Pinex and the dignified Sanatogen. The report also shows that besides senna, Epsom salt is now added to some of the "fig" syrups (*Jour. A. M. A.*, Jan. 11, 1913, p. 132).

SUCCESSFUL BUSINESS AND PATENT MEDICINES.—In appreciation of the changing public attitude toward "patent medicines" the mail-order house of Sears, Roe-

buck & Co. has discontinued the sale of patent medicines. Hereafter the firm's sales will be confined to simple drugs which are used as household remedies and a few harmless and safe official preparations (*Jour. A. M. A.*, Jan. 11, 1913, p. 134 and 144).

Commercial Digitalis Preparations.—An investigation of commercial digitalis preparations has been made by Weiss in the chemical-pharmaceutical laboratory of the Ministry for the Interior, to whom is entrusted the control of proprietary medicines in Austria. From an investigation of ready-made tinctures of digitalis Weiss concludes that the apothecary should prepare his own tinctures. Weiss is especially severe in his condemnation of the practice of making tinctures from fluid extracts. Among the commercial preparations which were deficient are found digitalone, digalen, liquid and tablets, tabloids of the tincture of digitalis (B. W. & Co.) and hypodermic tablets of digitalis (P. D. & Co.). Digipuratum, on the other hand, was found to have the strength claimed. Weiss concludes that at present the best form in which to prescribe digitalis is the freshly made infusion of physiologically tested leaves (*Jour. A. M. A.*, Jan. 11, 1913, p. 143).

Vanadium Preparations Rejected.—The Council on Pharmacy and Chemistry finds the following preparations of the Vanadium Chemical Company not eligible for inclusion with New and Nonofficial Remedies: Vanadiol, Vanadioseptol, Phospho-Vanadiol, Vanadium Solution for Intravenous and Hypodermic Use and Vanadoforme. After thorough investigation it was concluded that the company has not and never had any reliable evidence on which to base the therapeutic claims it has presented to the medical profession regarding its products. The findings of the Council were submitted to the Vanadium Chemical Company and its reply considered before publication of the report announcing the rejection was authorized. Vanadiol, according to the theory of the promoters, acts in the animal system as an oxygen-carrier. While the remarkable claims which were based on this theory are, to a large extent, capable of pharmacologic proof, no evidence to substantiate them was submitted by the company. The connection of the general manager of the Vanadium Chemical Company, "Dr." F. M. Turner, with the Turner obesity cure is noted (*Jour. A. M. A.*, Jan. 18, 1913, p. 225).

Vaccine Therapy.—When the first clinical reports on bacterial vaccine therapy were made in the United States, an attitude of skeptical pessimism was encountered in the medical profession. To-day a "positive phase" of optimism has carried a valuable therapeutic procedure to limits little short of ridiculous. Commercial expediency on the part of establishments marketing bacterial vaccines, and ignorance on the part of physicians generally as to the limitations of this branch of biologic therapy are to blame for this condition. Because of the uncertainty underlying the identity of the offending microbe in many infections, or because of the occasional mixed or secondary infections, combinations of bacterial vaccines theoretically justified by the "shotgun prescriptions" of other days are offered. Potent bacterial products producing toxic reactions of great severity, secret as to their exact composition and vaguely aimed at a mixed infection, are in the field, recommended to the medical profession through persuasive advertising literature or through the oral representations of detail men with no technical knowledge of immunology or practical experience in therapeutics. It follows that the use of these variously compounded bacterial derivatives is an unscientific confession of ignorance as to the specific cause of a given infection, and that the indiscriminate employment of these products must not only be ineffective but fraught with danger (*Jour. A. M. A.*, Jan. 25, 1913, p. 289).

Coutant's Fraudulent Deafness Cure.—George E. Coutant, M.D., conducts a fraudulent "cure for deafness" concern. The business is conducted on the mail-order plan. Victims are obtained by means of a series of "personal" letters which offer the treatment at a sliding scale of prices. Examination of the remedies sent out, shows that these consisted of practically inert tablets given for their psychic effect, laxative tablets, tablets for gargling, a cheap douche and douche tablets, a worthless ointment and an inhaler containing a mustard-oil preparation. Inquiry of the writers of testimonials for the "treatment" brought the acknowledgment in nearly all cases that the treatment had proven worthless (*Jour. A. M. A.*, Jan. 25, 1913, p. 303).

Chologen.—Chologen is a medical treatment for gall-stones. The treatment consists of three kinds of tablets: No. 1 contains calomel and podophyllin, No. 2 calomel and No. 3 calomel, podophyllin, camphor and menthol. The treatment, according to the promoters, is to be proceeded with in spite of disturbances, such as diarrhea and pain in the abdomen, and is to be repeated regularly for some years. It is worthy of note that experimental work seems to have been performed in an attempt to show that bile produced by this remedy will cause the disintegration or solution of gall-stones. While normal bile has a certain solvent action on gall-stones, calomel and podophyllin do not increase the amount of bile. It is somewhat discouraging to reflect that some physicians entertain so low an estimate of their ability to prescribe such well-known remedies as calomel and podophyllin that they must use them in fixed combinations (*Jour. A. M. A.*, Feb. 1, 1913, p. 383).

The Danger of Protonuclein.—Reid Hunt and Atherton Seidell have shown that, like the antifat nostrums Rengo and Marmola, Protonuclein contains thyroid in amounts sufficient to cause pronounced thyroid effects in many conditions. And yet Protonuclein has been advertised as a "perfectly harmless antitoxin, tissue-builder." The danger of using thyroid, the most powerful tissue-destroying drug known, in cases of typhoid, phthisis, etc., for which Protonuclein was recommended, in which the physician is supposed to use every effort to build up the system, is obvious (*Jour. A. M. A.*, Feb. 1, 1913, p. 384).

The Special Package Evil.—The use of proprietaries by physicians not only suggests self-medication to the patient, says W. C. Wescott, but it also causes the patient to lose confidence in his physician. Those who do not want to have the reputation of prescribing proprietaries should bear in mind that almost all are put up in a distinctive package and that the druggist is most likely to dispense it in this package. As a result it is more than likely that the patient will find it out if a proprietary is prescribed, no matter whether it is Fellows' Syrup with the name blown in the glass or the very ethical and probably valuable atophan with its neat little "star-bespangled" box, even if the physician takes pains to write special directions and the druggist removes the printed label and affixes his own (*Jour. A. M. A.*, Feb. 1, 1913, p. 387).

SULPHURIC ACID PASTE.—W. A. Pusey reviews the history of the use of sulphuric acid as a caustic. Sulphuric acid has been known since the sixteenth century, and doubtless it has been used as a caustic since that time, for its caustic action is its most obtrusive quality. To prevent its spread beyond desired limits, it has long been the practice to make it into a paste by incorporating with it some inert solid substance, such as sawdust, sulphur, charcoal, asbestos, saffron and lampblack. Pusey states that a sulphuric acid paste may be used effectively to destroy lesions in the skin, but that it is not a desirable agent to use for the removal of blemishes or when cosmetic results are to be considered because the extent of its action is not easily estimated and because, like other mineral acids, its use on the skin is not infrequently followed by keloids or unsightly scars. Even for the treatment of lesions in which effectiveness is the chief or sole end aimed at, as in epithelioma, Pusey believes it is not a preferable caustic (*Jour. A. M. A.*, Feb. 8, 1913, p. 434).

THOREMEDIN.—The claims made for Thoremedin having been questioned, E. R. Squibb and Sons submitted Thoremedin Paste, with the subsidiary preparations, Thoremedin Liquid and Thoremedin Ointment, to the Council with the agreement to discontinue the sale of these preparations if the claims were not found correct. The Council secured the aid of experts to test Thoremedin Paste side by side with a simple sulphuric acid paste, the identity of the two preparations not being disclosed to the experimenters. The result of the experiments together with other evidence showed that Thoremedin Paste possessed no advantages over a simple sulphuric acid paste and hence the Council voted that the several Thoremedin preparations be refused recognition. In accordance with its agreement the firm of Squibb & Sons announces that Thoremedin has been withdrawn from the market (*Jour. A. M. A.*, Feb. 8, 1913, p. 462).

Miscellany

MEDICAL SECTARIANISM

Hippocrates said, "He who loves his art loves man." We can best serve mankind by cultivating ourselves and perfecting our science. From every point of view our efficiency and success can come only from knowledge and wisdom, and the key to the whole is the scientific method. This does not mean that we are all called on to engage in scientific research, although those who have the opportunity can do no greater service to medicine and humanity than by contributing new data and ideas through intelligent investigation and observation. To few is it given to make epochal discoveries; the daily work of the great mass of us consists in carrying out the ideas of a few great minds. All of us, however, will attain the greatest efficiency by preserving the scientific attitude, and carrying out every detail of professional work on scientific principles. A receptive attitude, though tempered with healthy skepticism, should be maintained toward all advances in medical science. Some there are who, from intellectual inertia or mental sclerosis, manifest a certain hostility to innovations. This is not the spirit of progress; the therapeutic or diagnostic novelty of one year becomes the commonplace routine of the next.

If, then, we cherish the scientific spirit, if we labor to develop ourselves and advance our art, if we endeavor to meet in full measure the psychic as well as the physical needs of mankind, we shall find ample field for our activities and shall be following the only sure road to efficiency. On this alone depends our professional supremacy, and in this way can we best merit the approval of the public and regain that support which is now given to the sectarians. Confident of the validity of our principles and the sincerity of our motives, we can thus, oblivious to the distrust of the uncritical, the clamor of the hysterical and the malice of our detractors, with patience and serenity labor for the advancement and the glory of our profession.—"Medical Sectarianism," Nichols, *Journal A. M. A.*

PERMANENT HEALTH EXHIBIT AT WASHINGTON

The first permanent public health exhibit to be established by the United States government will soon be opened in Washington, providing the new project and plans which have just been worked out by Rupert Blue, surgeon-general, are approved and adopted by administration officials. These plans are now awaiting the attention of the secretary of the treasury, in whose department the United States Public Health Service is a bureau.

The results of the government's fight against typhoid, yellow fever, tuberculosis, bubonic plague, and other diseases will be shown by charts and models, and modern methods of sanitation and purification of water-supply and milk-supply will be graphically illustrated in the hundreds of exhibits to be placed on show.

Public health experts and sanitary engineers now realize that the public is intensely interested in the movement to cut down the death-rate in preventable diseases, especially in typhoid and tuberculosis, and it is in response to the demand for the most recent information that arrangements were made for this health and hygiene exhibit at the national capital.

The exhibit will be shown in a large infantry militia armory, at Fifteenth Street and Pennsylvania Avenue, in the heart of the downtown business and hotel section.

All of the property to be used in the exhibit is already owned by the government. Most of the models and charts to be installed have already been prepared by the Public Health Service and kept up-to-date for use in temporary exhibitions, similar to the one recently held in Washington by the International Congress of Public Health and Hygiene Experts.

Thymol for Tænia.—W. Allan, Charlotte, N. C., (*Journal A. M. A.*, July 20), recommends the use of thymol of tapeworm. It is cheap and requires no preliminary starvation or purgation and has during the past year been very effectual in his hands. He has removed *Tænia saginata* from three individuals, who were 11, 9 and 5 months of age with no recurrence to date. The thymol was given in the usual way, either with or without salts.

Improved sanitary conditions, as the result of activity on the part of health officers and other officials, are accepted by the authorities as the principal factor in giving New York state the lowest death-rate for 1912 in its history. It carries its own comment.

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, APRIL, 1913 No. 4

Original Articles

RECENT PROGRESS IN URETERO-PYELOGRAPHY

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Ureteropyelography has of late been severely criticized and even condemned on the grounds that it is a painful and dangerous procedure, and furthermore, an unnecessary one.

Ureteropyelography has been employed in the Mayo clinic in the treatment of more than 1,000 patients without fatality or permanent injury. While we have occasionally observed patients in whom colic followed examination by this method, we not infrequently observe similar symptoms from ureteral catheterization alone and we expect more or less colic to follow the use of Kelly's overdistention method.[1]

It has been our experience that severe reaction following pyelography is usually the result of error in technic or lack of care in the selection of cases. The following are some of the technical precautions which should be observed in these cases.

1. Colloidal silver (collargol) crystals should be carefully ground in a mortar when put in solution (10 per cent.) and then filtered, otherwise the undissolved crystals may be deposited on the walls of the pelvis and ureter and act as an irritant.

2. The solution should be carefully warmed before injecting—not boiled—since it coagulates with boiling.

3. The solution should be injected by the gravity method,[2] watching the patient for the slightest evidence of pain. From 2 to 8 c.c. will usually suffice unless symptoms of obstruction have been previously noted.

4. A large ureteral catheter should be used so that the injected solution may not drain away easily.

5. The apparatus for the *x*-ray and the injection should be so arranged that there will be no delay after the catheter is inserted.

In selecting cases suitable for pyelography it should be remembered that the method is not to be employed unless the existence or nature of a lesion in the urinary tract cannot be diagnosed in any other way. Unless the procedure is strongly indicated the hypersensitive and neurotic individual should not be examined by means of ureteropyelography. Instances have been reported (Buerger)[3] in which deposits of silver with surrounding foci of evident suppuration were found in the cortex of a kidney which was removed following pyelography. Three similar cases have been observed in the Mayo Clinic, all of which were associated with large hydronephrotic kidneys which did not drain the injected solution. Pyelography is distinctly contra-indicated in such cases and the procedure is not usually necessary in making the diagnosis. It must be remembered moreover, that merely passing a catheter into a distended renal pelvis with a constricted outlet may suffice to cause similar pain and cortical infections. Severe colic resulted in two patients under my observation who had large hydronephrotic kidneys and in whom Kelly's overdistention method was employed to ascertain the capacity of the kidneys. At operation both kidneys showed cortical areas colored with the methylene-blue used in the distending solution. It is quite evident, therefore, that whenever the renal pelvis cannot drain itself following catheter trauma to the etiological ureteral constriction, it may force some of the retained pelvic contents up the dilated tubules into the renal parenchyma.

In recent literature our attention is again called to the subject of ureteral kinks and anomalous positions of the ureter as the cause of pain accompanying movable kidney. Schmidt and Kretschmer[4] have shown how variable may be

1. Kelly: Bull. Johns Hopkins Hosp., June, 1906, p. 175.
2. Baker: Surg., Gyn. and Obst., 1910, x, p. 536. Stanton: Albany Med. Annals, July, 1912. Thomas: Jour. Am. Med. Assn., Jan. 18, 1913, p. 184.
3. Buerger:
4. Schmidt & Kretschmer: Surg. Gyn. and Obst., 1911,

the course of the normal ureter. Fowler[5] claims if a pyelogram is made with the patient first in the dorsal and then in the erect position and the ureter is seen to bend sharply at a fixed point in the pyelogram taken in the erect position, that we have a ureteral kink and a condition which requires operation. In a series of twelve patients who had no abdominal pain whatever and in whom a movable kidney was accidently discovered in routine clinical examination in our clinic, an evident ureteral kink was demonstrable in five instances in the pyelogram taken in the erect position.

Cabot[6] maintains that the relation of the upper ureter, as it leaves the pelvis, is of value in the diagnosis of early hydronephrosis. While it is true that with hydronephrosis we frequently find the ureter leaving the pelvis at unusual angles and then follow a circuitous or tortuous course, nevertheless, in observing a series of normal pelves we often find evident anomalous insertion of the ureter. Whereas at operation we may occasionally find early hydronephrosis, when no pelvic distention could be definitely demonstrated with our present methods of examination, it is difficult to conceive of any long-standing actual ureteral obstruction failing to cause demonstrable dilatation of the pelvis and ureter. In other words, unless the pyelogram shows dilatation of the pelvis and ureter above an evident kink or anomalous insertion, we have no objective indication for operation.

While pyelography has proved to be of value particularly in the diagnosis of small, early hydronephrosis[7] (20 to 30 c.c.); yet, it has its limitations. The normal renopelvic outline varies to such an extent that it is difficult to fix the normal limits. The first evidence of previous mechanical retention in the renal pelvis will be shown by the broadening of the entire calyx and flattening of its terminal irregularities. Not infrequently, however, the normal pelvis will show evident broadening of several calices and an exceptionally large pelvic outline which may be difficult to differentiate from the changes of early hydronephrosis. To be of practical value, therefore, the pelvic deformity must be quite marked. Unless the pelvis is fully distended with the injected solution, moderate pelvic distention will be overlooked. This often involves technical difficulties. When a small hydronephrosis is suspected it is best to use as large a catheter as possible to prevent the return flow of the injected material.

It may be difficult to demonstrate ureteral distention in the radiogram, following the injection. Unless the ureter is fully distended the dilatation may not be apparent and the partially collapsed ureter may appear to be of normal size. When evidence of possible ureteral distention is obtained by means of the catheter, namely, residual urine and obstruction, better outlines may often be obtained by rapidly injecting the colloidal silver with a syringe rather than by the gravity method. Ureteral dilatation resulting from infection and without constriction may be difficult to show unless a catheter be used large enough to at least partially prevent the return flow of the injected medium. The outline of the normal ureter may occasionally appear abnormally large because of the considerable amount of return flow, but the apparent distention can usually be differentiated from a slight abnormal distention since the broadening caused by the return flow is evident only in areas giving an irregular outline to the ureter. The possibility of demonstrating distention of the ureter by means of permitting the colloidal silver solution to run into the ureter from the injected bladder with the patient in the Trendelenburg position has been advocated by various observers,[8] but has not proved to be of practical value, except in a few cases in which the ureteral dilatation involved the meatus. The meatus is not as a rule found dilated with ureteral dilatation except with ascending infections accompanied by severe cystitis or with extreme bladder retention of long standing.

The use of gas as an injected medium instead of colloidal silver has been advanced by different observers. Cole[9] advocated the injection of air and more recently Lichtenberg[10] suggested the use of oxygen. Theoretically, either air or oxygen should be admirable substitutes and would obviate the disagreeable features of the colloidal silver. Simplicity of technic in making the injection, absence of after-pain, rapid drainage and the advantages gained in localizing the renal stone are all arguments in favor of gas. In our experience, however, the use of gas with the present technic or method of application has not been practical. The first obstacle encountered, in spite of careful preparation, is the difficulty of eliminating gas in the bowel. The confusion of the shadow in the renal pelvis with the shadow

5. Fowler: Surg., Gyn. and Obst., February, 1912, pp. 137-143.
6. Cabot: Jour Am. Med. Assn., Jan. 4, 1913, p. 16-20.
7. Braasch: Jour. Am. Med. Assn., Dec. 16, 1911, pp. 1986-7; Cabot: Ibid., Jan. 4, 1913, pp. 16-20.
8. Uhle: Tr. Philadelphia Acad. Surg., 1911, xviii, 19. xiii, 287-292.
9. Cole: New York Med. Jour., 1910, xcii, 705-708.
10. Lichtenberg: München. med. Wchnschr., June 20, 1911, pp. 1341-2.

caused by the gas in the adjoining bowel renders interpretation uncertain. Furthermore, in the majority of cases, it is difficult to keep the pelvis fully distended while the radiogram is being made. The consequent lack of detail in the air distended outline is a distinct disadvantage. It is usually impossible to distend the ureter with gas and at best the procedure is uncertain.

The clinician who has had considerable experience with cystoscopy and with the interpretation of shadows in radiograms of the urinary tract, and who has an opportunity to see his diagnoses checked up at the operating-table, realizes that these diagnostic methods will frequently mislead the operator. Naturally, the more experienced the clinician the less will be the percentage of errors. But even with wide experience the two diagnostic methods when used independently, often fail in the diagnosis of hydronephrosis, in the identification and extent of inflammatory changes in the kidney and ureter, differentiation of extrarenal and extra-ureteral shadows, localization of renal shadows, identification of renal tumors, identification and localization of ureteral obstruction, hydro-ureter and the diagnosis of congenital anomalies. It is in the above conditions that ureteropyelography alone can give us accurate data as to the nature and extent of the lesion. Whether or not this will be regarded as necessary depends on the degree of accuracy desired in the diagnosis.

THE HEAT FACTOR IN THE ALIMENTARY DISTURBANCES OF INFANCY

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The summer diarrheas of infancy have long been the bane of medical men and the source of much anxiety and sorrow to parents and friends. A great deal of time and much painstaking study has been expended in the attempt to determine the cause and thereby the means of preventing the enormous death-rate attributable to this disease. Every possible factor has been brought out and considered the chief cause, only to be finally put among the contributing causes, and to-day we are still working toward the goal.

In a book by Routh of London, published in 1860, summer diarrhea is stated to be of zymotic origin, and that it is contagious, as evidenced by the fact that it is more prevalent in cities where there is a greater congestion of population. Later, the bacterial theory became generally accepted. More recently it is being regarded as a disease of metabolism concerning especially certain of the food elements.

The bacteriological theory seems reasonable, inasmuch as breast-fed children are less susceptible to summer diarrhea, and as the high temperatures are favorable to the growth and development of bacteria in the milk. This theory has led to the establishment of pure milk stations in every large city where even the poor can get clean milk for the babies. It is noteworthy, however, that the simple furnishing of pure milk has not been the means of reducing, very materially, the mortality among the infants.

In a paper by Dr. Pisek, before the Pediatric Section of the New York Academy of Medicine, the results of the work of the milk stations in New York City are given for the summer of 1911. There were seventy-nine milk stations, and 74,000 quarts of milk were dispensed weekly, showing the magnitude of the work. Dr. Pisek states, that "the idea of the function of the milk station is changing; that it is no longer primarily a milk distributing agency, but a center for the education of the mothers in the care of the children." The visiting nurses go into the homes and teach the mothers how to modify the milk at home; how to keep the milk in simple home-made refrigerators; how to conserve the breast feeding, thus saving the breast to many babies who otherwise would be thrown onto artificial food. They also teach them how to recognize the danger signals of summer diarrhea and show them the necessity of immediate action. By these means the death-rate was diminished, 17.7 per thousand, over the summer of 1910. So it was found that there must be more done than to furnish pure milk in order to accomplish greater benefits and results.

About two years ago, I was impressed by an article by Finklestein, in which he stated, "That summer diarrhea is induced by overheating the babies, and that deaths from summer diarrhea should in reality be reported as deaths from heat stroke." We have seen babies suffering from impaired digestions and with diarrhea caused by having been overheated in bed by hot-water bottles. Since reading this article I have observed that the severest and most fatal cases have been in small, low, poorly ventilated houses, in the outskirts of the village where shade trees are absent and there is no water available for lawn sprinkling.

In the cities, the mortality is greatest in the congested slum districts where there is no green grass or shade, but only the pavements, brick and stone buildings radiating heat and retaining it long after the heat wave has passed.

Within a year or so, several articles have appeared from the pen of Hans Rietschel on this subject. One of these articles was accompanied by a complete bibliography covering all the phases of the disease.

Rietschel finds that previous to 1870 little was known in Germany of cholera infantum except as reports came of it from America and that it was known as the "American Disease." After that time, however, the population began accumulating in the cities and the children began to suffer from the summer diarrhea. He finds, also, that it not only is most common in the city, but also that it is most severe in the hottest parts of the cities, and in the hottest houses and the hottest rooms.

For instance, the statistics of the deaths from this disease in various cities were analyzed. Dresden lies along the river Elbe and in the river districts the streets are low, while back from the river they are fairly high. In seven streets in the low districts 40 per cent. of the infants living on those streets died; in sixteen, 30 per cent.; in fifty, 20 per cent.; while in 223 high streets there were no deaths.

In Halle, Liefman found that there were 577 deaths on thirty-five streets, while on 204 streets all the rest of the infant deaths, to the number of 619, were scattered.

Another series of statistics compiled by Rietschel, covering a period of five years in a large number of dwellings in Berlin, are of interest in this connection. He finds that the heat in the houses is several degrees higher than that of the outside air and that the air is stagnant and the temperature does not fall at night to the same degree as the outside air. He contends that the high degrees of heat lower the vitality of the infant to such an extent that its toleration for the food elements is greatly decreased, especially among delicate children, and that there are naturally greater numbers of such delicate children and children with digestive disturbances among the class of people inhabiting these dwellings—consequently the death-rate is higher. It may be contended that these conditions also favor bacterial decomposition of milk and that this may be the factor of greatest importance, but Rietschel argues that lower night temperatures decrease the death-rate even though the children continue to take the bad milk.

Meinert analyzed 580 deaths from summer diarrhea with reference to the floors on which the children lived. He found that 3.98 per cent. lived in the basement, 12.78 per cent. lived on the ground floor, 10.78 per cent. in the first story, 9.13 per cent. in the second story, 8.18 per cent. in the third story, 9.18 per cent. in the fourth story and 11.27 per cent. in the fifth story.

He explains this as follows: The air in the basement, while foul and unhealthy, is cool. On the ground floor it is hot and the circulation of air is less. The gradually decreasing percentages in the ascending stories is due to the better circulation of air, while in the fifth story, being directly under the roof on which the hot sun beats all day, it is again high, and this excessive heat more than counterbalances the better circulation of air.

If the excessive heat rather than bacterial contamination is the cause of the diarrheal diseases, why are artificially-fed infants more susceptible than breast-fed. Rietschel explains it as follows: The breast milk is naturally adapted to the digestive functions of the child, while any other form of food is an unnatural food and the digestion of the child is more easily disturbed by its use. He subjected a number of children to high temperatures during which time the milk was above reproach from a bacteriological standpoint. He found that those babies with impaired digestions reacted with diarrhea while the healthy ones did not.

Again, he fed a considerable number of children on milk which had been left standing in open vessels, at room temperature, for a certain time. Some of the children were healthy and some had alimentary disorders. He found that most of the healthy ones were unaffected while those suffering from intestinal diseases did not react in any case in a manner typical of summer diarrhea, although some were aggravated in a degree. However, he does not advocate feeding any but the best milk obtainable.

In the Kinderasyl in Berlin, practically the only cases of summer diarrhea occurring in the institution are found in a low, illy-ventilated, frame building situated in the angle of the L as I have stated in a previous paper.* Inasmuch as all the infants in the institution receive food from a common source and it is all sterilized, it seems reasonable to suppose that the cause lies outside the food supply, and as heat and air in the frame building are the only factors at variance with the conditions in the remainder of the institution the diarrhea mentioned may well be ascribed to the heat factor.

The relation between deaths from summer diarrhea and the outside temperature is a direct one. Statistics for the summer of 1908, quoted by Rietschel, show a direct increase in the number of deaths, week by week, as the summer tempera-

* Infant-Feeding, Physician and Surgeon, June, 1910.

ture increased, up to the last week in August. During this week the day temperature averaged the highest of any week of the summer, namely, 86½ degrees. The night temperature, however, was lower than the average for the summer—60 degrees. This gave the infants a chance to cool off, thus offsetting the effects of the excessive day temperatures; there were fifty less deaths in the city than in each of the previous weeks, and 105 less than in the third week previous.

A chart prepared by Finklestein shows graphically this relationship. The sudden rises of temperature are accompanied by increases in the number of deaths; he explains that, by connecting the lower points of the curves, we get the gradual increase of deaths, in which the illnesses may have been prolonged over several days or weeks, while the upper angles represent the acute cases.

The diarrheas begin to increase within a few hours from the time of the excessive heat, and, according to the figures from which Finklestein's chart is made, the mortality begins to increase very suddenly.

Between eighty and ninety degrees F. the number of deaths markedly increase. It scarcely seems probable that the ten degrees rise of temperature would increase the toxicity of the milk sufficiently to alone cause the increase in the number of deaths. Also, we find that the prolongation of the heat wave causes an increase in the mortality for many of the infants with subacute or chronic diarrheas succumb to the continued heat, who, if there were a break, would begin to improve. Some observers have noted that the mortality from the diarrheas is greater when there is no wind and probably this is a partial explanation for the higher mortality in the city than in the country; also, of course, in the country there is more opportunity for the reduction of the temperature at night.

In this connection the pertinent question has been asked, if given the choice between treating children with summer diarrhea in a city tenement, at home with a germ-free milk, and in the country, or at the seashore with milk subjected to home conditions which would most physicians prefer?

There are two forms of heat effects. One is "heatstroke," and the other "heat stasis." All of us are familiar with heatstroke, which is the same condition as found in the adult, and undoubtedly is the direct cause of many infant deaths. Bartlett explains that heat stasis is a condition admitting of no definite proof pathologically, but that high temperatures cause a distinct harm to the vitality of the infant. Von Pirquet shows some graphic representations of this which indicate the immediate and extreme lowering of the limit of tolerance for food when the child is subjected to heat. In another chart he shows the variations in the tolerance limits for various modifications of cow's milk and for woman's milk.

Infants subjected to high temperatures suffer a rise in body temperature, which is explained by a disturbance in the heat loss of the body, i. e., there is a heat stasis. When this is prolonged the vitality is lowered and the cells are required to functionate under abnormal conditions and some suppose that this causes products to be formed which are injurious to the child. Ludwig Meyer suggests that there is a retention of salts and that the fever may be a "salt fever."

Rietschel concludes that the problem of summer diarrhea is essentially a housing problem, and that in the future we must look more to the environment of the child than to its food in solving it. It is not a simple matter, but when its importance is more generally recognized, the sooner will it be possible to convince municipalities of the necessity of providing more playgrounds and parks where the children may get good air and cool shade. And, when the physicians recognize the importance of this heat factor the sooner will the mothers be educated to the necessity of keeping the babies cool by frequent spongings, of good ventilation and getting the babies away from homes and into the parks, or into the country as much as possible during the hot weather.

Certainly we cannot afford to relax our efforts to procure pure milk for the babies, nor be negligent in the matter of the constituents of the diet, but if the direct effects of heat are as harmful as some of recent observers believe we must be encouraged, for the future offers much of promise in the field of the reduction of the summer mortality of infants.

INTRATRACHEAL INSUFFLATION: PRINCIPLES AND USES*

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I will endeavor in this paper to briefly cover the subject of intratracheal insufflation; touching on its history and practical application, with a few experimental observations in the use of this method following gas poisoning and drowning.

The history of this subject is not new. As far

* Read before the Kent County Medical Society, Jan. 22, 1913.

back as the sixteenth century, Andreas Vesalius, the father of modern medicine, proved that he could keep an animal alive, after opening the chest, by blowing through a tube introduced into the trachea.

In the latter part of the seventeenth century, Robert Hook demonstrated that respiratory movements were for the purpose of bringing about a supply of fresh air to the lungs.

During the eighteenth century, the use of a bellows connected with a tube, and introduced into the throat, was advocated in cases of drowning and for artificial respiration. This procedure was recommended by the Royal Humane Society; they recognized the danger of overdistention as well as blowing air into the stomach instead of the lungs as a result of some obstruction in the air passages, in which event they advised tracheotomy. Shortly after this time DeSault, through accident, discovered that the larynx would tolerate a tube introduced within its lumen for an extended period, and as a result of this discovery devised the technic of introducing a catheter into the trachea for relieving stricture of the larynx.

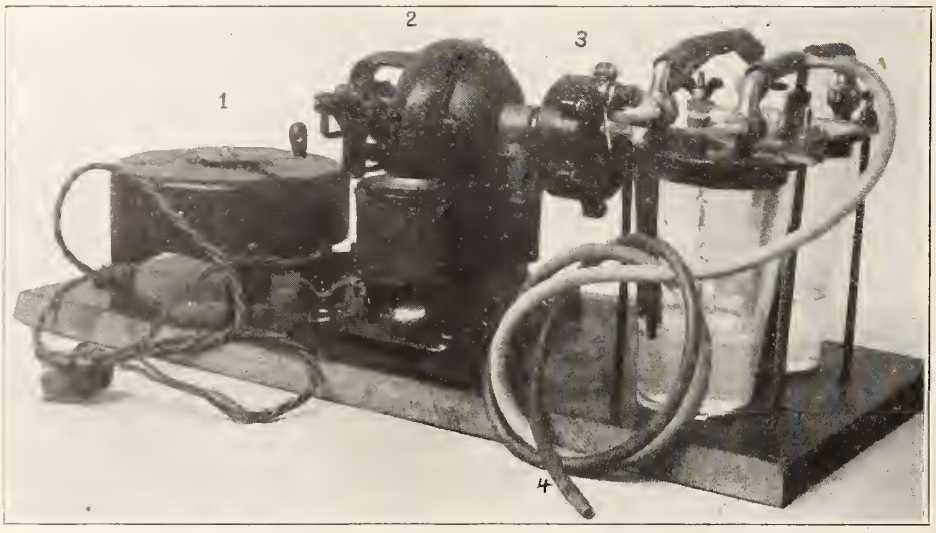
The bellows and laryngeal tube were then in general use for all artificial respiration until 1827 when LeRoy showed the dangers of overdistention of the lungs by use of bellows and advocated a method of artificial respiration by alternating compression of chest and abdomen, after which the use of the bellows and tracheal tube was discontinued.

In 1885, O'Dwyer of New York devised a tube and introducer which at once became popular, and is to-day accepted in its various modifications for use in tracheal and pharyngeal obstructions as in diphtheria. Two years later, Fell of Albany reported a case of severe opium poisoning which he saved by means of bellows and tracheal tube.

To Matas belongs much credit for original work along this line. He devised a very ingenious apparatus utilizing Fell's methods and O'Dwyer's tube with slight modification by means of which he was able to keep the patient anesthetized and perform intrathoracic operations.

For the past fifteen years, Kuhn of Germany has been using a tube introduced into the larynx, and more recently, 1908, the use of a two-way tube—two tubes within one large tube, one for entrance of air, and the other for exit of air; this has proved quite efficient for slight intrathoracic work, excepting that the air did not get to the deeper alveoli because of the space between the end of the tube and the tracheal bifurcation. Meltzer and Auer recognized the error in Kuhn's technic, and by bringing a single smaller tube to the bifurcation of the trachea they overcame all the difficulties encountered in all other methods; hence to them belongs the credit for demonstrating the safety of intrathoracic surgery as well as artificial respiration by means of their intratracheal insufflation technic.

In 1904, Sauerbruch of Mickulitz' clinic gave this subject considerable impetus by describing his now famous negative pressure air chamber. This consisted of an air-tight cabinet sufficiently large for patient and operator; the air in the cabinet is kept under constant negative pressure and the head of the patient emerged from this cabinet, through an opening to the outside, this



THE AUTHOR'S APPARATUS FOR INTRATRACHEAL INSUFFLATION

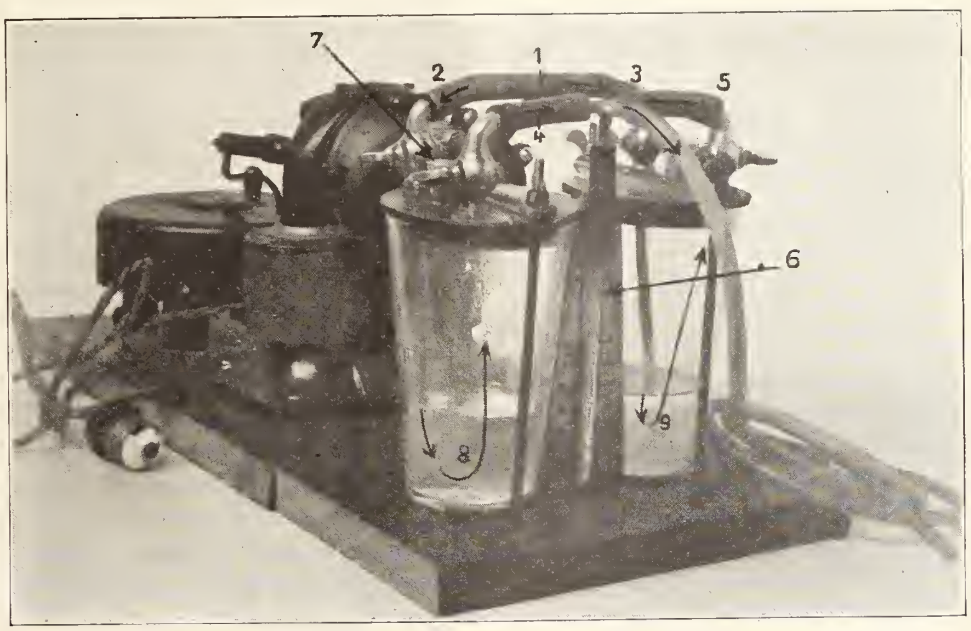
(1) Rheostat. (2) 1/10 H. P. motor. (3) Air compressor. (4) Intratracheal tube. Measures 8x20x8 inches. Weight 25 pounds.

opening is protected by a rubber collar fitting snugly around the neck. The negative pressure in the cabinet prevents collapse of the lungs when the chest is opened. The principle of this mechanism is ideal, the patient breathes naturally, the difference in pressure of air on the outside and that within the cabinet is not sufficient to embarrass expiration.

The studies of Brauer and Willy Meyer of New York have shown that the mechanism of Sauerbruch's negative pressure cabinet may be reversed, namely, positive pressure within a chamber into which the head of the patient is placed, the operator and table remaining on the outside. The effect of this is in no way different than the much more complicated Sauerbruch chamber.

its outcome, Elsberg utilized the intratracheal insufflation in a case at Mount Sinai Hospital in which the patient, suffering from myasthenia gravis, was pronounced dead. By this method he kept the patient alive for five hours without an apparent voluntary respiratory effort.

Encouraged by this result, he resolved to use his insufflation apparatus on the first suitable case that presented itself, which was on Feb. 20, 1910: a case of abscess of the lung came for operation, which was performed by Dr. Lilienthal, the anesthetic being given by Elsberg under ether intratracheal insufflation. A report of this was made by Lilienthal and Elsberg in the *Annals of Surgery*. The operation lasted forty-five minutes; the lung was well exposed, the anesthetic being taken without strain; pulse and color remained good throughout the operation, and the patient came out from the anesthetic in four minutes after it was discontinued. This method of anesthesia is now recognized as an every-day procedure at this institution, it having been given in over 500 operations; it is used at Roosevelt Hospital by Dr. Peek, as well as in the Boston City Hospital and in several other hospitals. Those who were so strongly opposed to this artificial respiration apparatus now look on it with considerable favor.



THE AUTHOR'S APPARATUS FOR INTRATRACHEAL INSUFFLATION

(1) Air from air compressor. (2) Air to hot water chamber. (3) Air to ether. (4) Air from hot water chamber. (5) Air from ether chamber. (6) Hg manometer. (7) Opening to chamber; rubber stopper. (8) Hot water. (9) Ether.

The greatest opponent to the Meltzer-Auer method was Willy Meyer, who could see no good in this apparatus, claiming that while it appeared very simple it was in reality more complicated than his positive and differential pressure cabinets, and though it worked on the dog it would not necessarily do so on the human subject.

It would seem that, following such criticism from so eminent an authority, the method advocated by Meltzer would never have been utilized in the human being, but the numerous experiments on animals and other observations in the physiological laboratory more than convinced these workers that the method was feasible; and accordingly, with considerable trepidation as to

In order to appreciate the principles and technic as advocated by Meltzer and Auer it is necessary to thoroughly understand the physiology of normal respiration.

PHYSIOLOGY OF RESPIRATION

By the alternate expansion and contraction of the chest we have inspiration and expiration. To inspire air into the lungs it is necessary to increase the capacity of the thorax, this, as you know, is accomplished by the muscles of the chest and diaphragm, which increase all the diameters of the chest cavity. The air or pressure within the pleural space being negative and the lung elastic, it must necessarily follow the movements of the chest wall. There being only one opening, the nasopharynx, air rushes in. Should there be produced another artificial opening in the chest wall, air will rush in through such an opening as well as through the trachea. This air must necessarily occupy the space formerly occupied by lung tissue, thus producing pneumothorax.

If both sides of the chest are opened, we have double pneumothorax; which is necessarily fatal, as the lung structure has only one property, that of contraction. It cannot expand as long as air can rush into the pleural space and equalize the positive atmospheric pressure with the relative negative pressure existing in this space normally.

Following inspiration, the muscles relax, causing a decrease in all the diameters of the chest; this brings the air in the lungs under greater pressure than the external air, and there being no obstruction to its exit, it escapes through such openings as may exist, and we have expiration. There are two forms of respiration: internal and external. The internal respiration has to do with the exchange of gases between alveolar air and blood-vessels, and the external attends to the maintenance of the proper composition of the gases in the alveolar air. Inspiration and expiration are designed to bring about this exchange of gases in the alveoli and between the alveoli of the lung and capillaries.

Since, then, the only function of the respiratory movements is to bring about this exchange of gases, any principle that in effect will bring about the same exchange of gases will answer the purpose of respiratory movements, which as I have demonstrated, may be entirely suspended for some time.

Haldane of England has shown that respiratory movements depend on the CO_2 content of the blood, and an excessive number of respirations will reduce the CO_2 content, producing a condition known as apnea, in which respirations are less frequent. This, if allowed to continue, will produce symptoms similar to shock: when the CO_2 reaccumulates, then normal respirations recur. The opposite condition to apnea is anoxemia, in which death results from insufficient oxygen.

After a normal expiration about 3,000 c.c. of air remain in the alveoli, 1,500 c.c. reserve, and 1,500 c.c. residual. About 500 c.c. of air taken in during inspiration is tidal air, one-third of this remains in the larynx, trachea and bronchi and does not come in contact with the alveoli. As the shock or jarring of respiratory movements aids in the diffusion of gases, it becomes necessary to allow collapse of the lungs several times a minute to rid the deeper alveoli of accumulated CO_2.

TECHNIC

A rubber tube is selected—30 cm. long, varying in size from 22 F. to 24 F.—depending on the size of trachea; the tube to be one-half the diameter of the trachea; however, absolute accuracy in this is not possible nor is it necessary. I have found for routine a 22 F. suitable for experiments on most dogs. The tube should have an opening at the center of the tip as in a stomach tube. A flexible tube is preferable to a stiff one, as it is not so apt to abrade the mucous membrane as will a hard rubber or silk woven tube.

Morphin should precede the anesthetic, which is started in the ordinary way. After the patient is well under, the tongue is grasped and pulled forward, the head held in the prone position, and the left index finger introduced behind the epiglottis, which is then pushed anteriorly toward the tongue.

By means of a direct laryngoscope or throat mirror, the glottis is brought into view. The tube, held by a laryngeal forceps, is now introduced between the cords which are relaxed as a result of anesthesia: there may be a slight expiratory effort or cough following this maneuver, depending on the depth of anesthesia. It is not necessary to cocainize the parts, as at first advised, preliminary to the introduction of the tube.

The tube is gently forced down the trachea until a slight resistance is felt, showing that it has reached the bifurcation of the trachea; it is then withdrawn for about 2 cm. The distance from the upper incisors to the bifurcation of the trachea is from 23 to 26 cm.; the glottis is midway between these points, and the tube may be marked accordingly. The tube is now attached to the mouth-gag which holds it in place and prevents it from slipping.

If the tube is within the trachea, air will be felt coming through it during expiration. It is much easier to place the tube into the esophagus instead of the trachea and accidently inflate the stomach; this can be overcome by introducing a stomach tube after tracheal intubation and allowing the air to escape.

The tube is then attached to whatever air force may be used—bellows, or air from tank under pressure or air compressor. Meltzer, in his experiments, used a bellows to which he connected a Y-tube, to one end of which he attached a mercury manometer, and to the other, the tracheal tube, and gradually began insufflation.

The pressure should begin slowly and gradually be raised to 15 mm. mercury. The various designs of apparatus on the market, of which I consider the Elsberg and the Janeway type the best, allow the air to pass through water properly heated and may be mixed with ether vapor either lightly or saturated.

For intrathoracic anesthesia, ether should be the anesthetic used. Nitrous oxid gas as an anesthetic, while ideal, used in the ordinary way, cannot be sufficiently controlled with the required force to enable its use in this form of anesthesia. Oxygen can be used in connection with any apparatus and the amount given definitely controlled by means of a separate bottle through which it may bubble, and the pressure be recorded on the manometer. The use of chloroform should not be advocated in this method, although I have used it in most of my experiments.

INDICATIONS

Elsberg has had uniformly good results with intratracheal insufflation anesthesia in all his cases in different operations, and favors this method for all operations about the head and neck, as it enables the anesthetist to be placed at some distance from the operator, and thus he is not so apt to infect the field of operation.

This method is ideal in all surgery of the superior and inferior maxillae, surgery of the throat, tongue, laryngectomies, or where the buccal cavity has to be widely opened, as it prevents the inspiration of blood and mucus into the trachea; this has been positively demonstrated. It is practically impossible to inhale fluids into the trachea and bronchi during insufflation, as the current of air coming up around the tube prevents the material from being inspired. One of the remarkable features of this anesthesia is that it does away with the mucous rattle in the throat so commonly observed in the usual anesthesia.

Not a single case of post-operative pneumonia has Elsberg had with this method, nor has he noticed any impairment in function of the vocal cords. This method should be used in all intrathoracic work and is ideal in cases of obstruction of the bowel, thus avoiding the accident of inspiring fecal or other vomitus. In giving this anesthetic, practically no vomiting has been observed either during or following it. It is practically impossible to give too much ether by this method, as shown in Meltzer's experiments. Where it is necessary to keep the patient anesthetized while lying flat on the abdomen, as in laminectomy, this method can be utilized.

To enumerate the experiments carried on by various investigators on animals, under intratracheal anesthesia, would consume more time than can be devoted to this paper.

Carrel claims that opening the heart and introducing a finger to ascertain the condition of the valves does not necessarily interfere with the health of the animal. He has been able to suture longitudinally, and transversely, and resect portions of the descending thoracic aorta, replacing the section with a piece of jugular vein preserved in cold storage. Dogs have been kept under ether intratracheal anesthesia for eight hours; and have been kept alive in cases of strychnia poisoning involving the muscles of respiration.

Cotton and Boothby have kept a cat alive for sixteen hours with the pleural cavities wide open, with recovery in fifteen minutes following the discontinuation of the anesthetic. They used nitrous oxid-oxygen anesthesia by means of a specially devised apparatus.

EXPERIMENTS

My own experiments and observations have been confined to the use of ether, chloroform, nitrous oxid and oxygen as the anesthetic agent insufflated into the trachea; the results of the use of these, together with the operations performed, coincide with the results obtained by others who have had considerable more experimental material. No dog succumbed to the anesthetic; occasionally the heart would be seen to slow up, or become feeble, in which event slight increase or decrease in supply of air, oxygen, or ether would overcome this difficulty. Spasm of the glottis, I encountered in one animal; this was due to too light anesthesia.

My first series of experiments were conducted for the purpose of ascertaining, if possible, at what stage of asphyxia from illuminating gas, resuscitation was possible. In all the experiments the dogs were placed in an air-tight cabinet into which gas was forced. Within five minutes, depending on the height of the animal (the smaller ones living longer), the animal will succumb. During this time the animal is first seen to take deep inspirations followed by deep expirations; soon the muscles of extraordinary breathing are brought into play; the eyes become prominent and the animal is taken with general convulsions; this lasts only a short while, about

thirty seconds; following this spasm there is a general relaxation of all the muscles, and respiration all but ceases to recur at longer and longer intervals, with a slightly prolonged sighing inspiration, until they cease altogether; the heart stops and the animal is dead.

I have been able by means of intratracheal insufflation of air and oxygen to resuscitate two dogs that had been asphyxiated in this manner. In one, I used only air and having induced voluntary respiration I discontinued the insufflation and on removing the tube the animal gradually developed tonic convulsions, and therefore he was asphyxiated thirty-six hours later. In the other dog I used oxygen and air, and continued the insufflation for ten minutes after normal respiratory efforts began with the result that he was practically normal within two hours after exposure.

The results of insufflation following drowning were not encouraging; this I think is in part due to our inability to empty the alveoli of fluid. I attempted the emptying of the lungs by gravity, and think that the frequent changing of positions and withholding inflation until part of fluid is thus removed may bring about better results. Pressure on the chest wall in attempts at artificial respiration is very apt to rupture the lungs, as has been demonstrated in our experiments. This part of the subject I will leave for further investigation.

CONCLUSIONS

In conclusion permit me to make the following suggestions:

1. That intratracheal ether insufflation anesthesia be used more extensively in all operations about the head, neck and throat, where the hands of the anesthetist are apt to interfere with the surgeon's technic and to prevent the aspiration of mucus and blood.

2. That this method of anesthesia and distention of lung offers the safest means of exploring the chest cavity.

3. That this be used where vomiting during anesthesia is dangerous and when the necessary position of the patient interferes with the administration of the anesthesia in the ordinary way.

4. And finally, that all hospitals be equipped with some apparatus enabling one to resuscitate a patient in whom respiration suddenly has ceased during anesthesia, or, in cases of neonatorum asphyxia, or, poison from any cause producing respiratory paralysis.

Metz Building.

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SALVARSAN IN GENERAL PRACTICE*

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So much of the periodical literature on salvarsan has been written from the point of view of the specialist or hospital man, that the writer has deemed it of interest to give the experiences of a general practitioner, in a small town, with practically no hospital or scientific facilities.

The method and apparatus to be described have been employed in one hundred and twelve cases to date, and with a single exception, a very cachectic infant of one week, the results have been uniformly satisfactory. A considerable proportion of the cases were individuals who had not shown satisfactory improvement under mercurial treatment. In one case the succinimide had been used up to the limit of tolerance without arresting the progress of the disease.

Many of the patients were unwilling or unable to pay for Wassermann tests, and accordingly none were made on them, although the advisability of it was in every case strongly urged. Most of the cases had two injections—one before treatment, and one, three months or so after stopping the mercury which was given after the salvarsan.

A physical examination was made of every patient, with especial attention given to the heart; serious or uncompensated heart lesions being regarded as valid contra-indications to the

*Read before the Society at Owosso, Mich., July 1, 1912

intravenous use of the drug. In all but the very early cases, the eyes were examined with the ophthalmoscope; serious optic neuritis being commonly regarded as a contra-indication. However, in one case, referred to me by an oculist, there was an optic neuritis of moderate severity which promptly subsided after treatment.

APPARATUS EMPLOYED

The apparatus used is simple in the extreme. A large, heavy glass bulb-funnel, of about 500 c.c. capacity, without stopcock or stopper, is used as the receptacle for the solution. About four feet of small gum tubing is connected to this with a pinch-cock and a large aspirating needle fitted to the distal end. A stoppered graduate cylinder of 50 c.c. capacity, and a pipette of 2 c.c. capacity are also required.

For the preparation of the solution of the drug, only one reagent is required, a 15 per cent. solution of sodium hydroxid in distilled water. It may be stated here that it is of the greatest importance that no water except distilled water, and no sodium chlorid or hydroxid, except the C. P., should ever be employed, as serious or even fatal results are said to follow the use of solutions made up with improper reagents. Even the sterilization of the apparatus must be carried out by boiling in distilled water. It is also important that the water used in making up the solution should be freshly distilled. The writer uses a simple combination of a Jena distilling flask and a Liebig condenser for the distillation of this water. Copper or block tin stills are said to be just as good, however.

TECHNIC OF ADMINISTRATION

The patient's arm is scrubbed from shoulder to wrist and a bichlorid pack applied and allowed to remain in place for at least half an hour. Asepsis is more than usually important from the fact that the solution of the drug has no antiseptic action against vegetable microbes, and is distinctly unfavorable to proper healing.

If the patient has large, prominent arm veins, the needle may be entered into the vein directly through the skin, but in individuals with much subcutaneous fat a small incision is often necessary. In case an incision is to be employed, it is well for the beginner not to make up the solution until the incision has been made and the vein laid bare; the apparatus should be boiling while the vein is being exposed.

The apparatus having been boiled for fifteen minutes in a covered dish (two large porcelain basins of the same size will be found very convenient for this purpose), with enough distilled water to cover the articles, the distilled water and sodium chlorid solutions are put on to boil. These are conveniently contained in Erlenmeyer flasks, of about 500 c.c. capacity, with gauze (not cotton) stoppers. The saline solution is made up by adding 7.5 grams of C. P. sodium chlorid to one liter of freshly distilled water. All solutions and utensils which come into contact with the solution of the drug should be kept as near to 100° C. as possible.

Everything being ready, the neck of the ampule is broken by making a file scratch near the body of it, and striking a sharp blow; or touching the scratch with a hot rod. About 20 or 30 c.c. of the hot sterile distilled water is poured into the graduate, and the drug added to this. If the entire dose of 0.6 gram is not to be given, the deduction can most easily be made by discarding a proper proportion of the solution. The stopper is placed in the graduate and the latter is vigorously shaken until a perfectly clear solution results. The writer does not use the glass beads so generally recommended, since it is so easy to get a perfectly clear solution without them, and the beads are much given to chipping and breaking when shaken. It should be observed here, that a perfectly clear solution without any undissolved or gelatinous particles in it, is absolutely essential.

Two c.c. of the sodium hydroxid solution are now added from the pipette, and the graduate shaken again. A voluminous, flocculent, yellow precipitate results. More of the alkali solution is now added drop by drop, with frequent shaking, until the solution again becomes clear. The approach of the point where the clearing occurs is indicated by a darkening of the liquid. Again, it is important to observe that an absolutely clear solution, with not even a trace of opalescence, should be had at this time. Keeping the solutions hot will aid in obtaining and keeping this effect.

About 350 c.c. of the hot sterile salt solution is now poured into the bulb-funnel and allowed to run rapidly through the tube and needle for a few seconds, to be sure that all air is removed from the tube. It is even well to strip the tube through the fingers, to be sure that no air bubbles remain in the tube or needle. The danger of air embolism is too well known to need mention here.

The needle is now introduced into the vein, either through the skin, or through an incision, the vein being in either case distended by means

of a tourniquet or blood-pressure cuff around the upper arm. This obstruction to the venous return should, of course, be removed at once when the needle is well entered. The needle should point in the direction of the blood-current. The salt solution should, of course, be flowing constantly during this procedure, to prevent the access of air to the needle end.

When it is seen that the salt solution is flowing satisfactorily, the bulb being held about three feet from the vein, the salvarsan solution is carefully poured into the bulb and allowed to mix with the salt solution. The dilute solution of the drug now enters the vein, and the flow should be slow; about fifteen minutes should be allowed for the 300 c.c. When the bulb is almost emptied, 50 or 75 c.c. of saline should be added, to wash out the tube and vein.

The temperature of the solution is apt to be too cold rather than too hot, unless great care is taken to keep everything as hot as possible. The slow flow through the small tube reduces the temperature greatly, so that unless the solution was almost boiling when placed in the bulb, it will be cooled down to 100° F., or so, when it reaches the needle. The temperature may be estimated closely enough by feeling of the tube and needle.

When the last added saline has run through the tube for a time, the needle is withdrawn from the vein and a compress instantly placed over the opening, and held there with moderate pressure for a few minutes. Then, in case the skin has been punctured, the opening is sealed with collodion; or if an incision has been made, it is sewed up with horse-hair sutures and a dry, sterile dressing applied. The patient should be in bed during the entire procedure, and it is the writer's practice to keep him there for twenty-four hours afterward.

When all of the above precautions, with regard to the solutions, have been carried out, little or no reaction is to be expected, except when the patient has a secondary syphilitic eruption, at the time of the transfusion, the papules may become larger, more engorged, and may become uncomfortable—the so-called Herxheimer reaction. The writer has had an opportunity of observing this in three cases. In several others with the same character of eruption the reaction was not observed.

If the water used in the preparation of the solutions is not freshly distilled, more or less reaction is always seen, consisting of chills and fever, often accompanied by diarrhea and vomiting. This has been ascribed to the presence in the water of bacteria and bacterial products, as it is well known that distilled water, simply kept in bottles after distillation, soon becomes full of microscopic forms of life. Filtering the water does not suffice to remove this objectionable material, since most of it is in solution.

METHODS OF ADMINISTRATION

As to choice of methods of administration of salvarsan, the writer is convinced that the intravenous method is superior to the others. The intense pain, attendant on the subcutaneous injection of the alkaline solution, renders that method very objectionable. The writer has not had uniformly good results with the injection of the neutral emulsion in sesame or light petroleum oil. Where repeated injections of the oily emulsion are used, as in old chronic cases, the results are better, but generally speaking the intravenous method has been most satisfactory. With the exception of four children and one cachectic adult, all cases have received the full dose of 0.6 gram.

As a routine procedure, all cases are put on mercury after the injection, even if they have previously proved refractory to the drug. Several of the patients, who through prejudice would not take mercury, have now gone more than two years without recurrence.

Unquestionably some extravagant claims have been made for salvarsan, but anyone who works with it for a time is bound to become enthusiastic over the results, which in many cases are little short of miraculous. One must not believe that a single dose of the drug will certainly cure every case of syphilis, even though it may in some cases. Its chief use is probably in those cases, so common to all of us, which are not readily controlled with mercury. As a forerunner to a course of mercury, it will always be a most valuable remedy. An intravenous injection, followed at intervals of a month by one or more intramuscular injections, is, in the writer's opinion, the most rational method of employment.

The usefulness of the drug in malaria, yaws, trypanosomiasis, relapsing fever and other tropical diseases, is not of very great interest to us in Michigan.

At an early meeting of the society, the writer hopes to report a case of pernicious anemia, apparently successfully treated with neosalvarsan.

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THE MEDICAL INSPECTION OF SCHOOLS *

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"A little flattery now and then is relished by the best of men." It is not that we ask for adulation; but rather do we desire that moral support which extends the helping hand and gives to us the cordial approval of a "well done." Perhaps we have been doing so well, so much, so long, that the public has, in a measure, taken all things for granted; that we can do no ill; and, that it is more blessed *for us* to give than to receive. As a subconscious working philosophy this view may serve a very useful purpose; but I believe the profession of to-day merits somewhat more of actual commendation than it receives. Along this line of thought let me request of you a little introspection: I wonder if we often pause to contemplate the high standard of integrity, devotion and self-abnegation maintained by the medical profession as a solidarity? Of course we do not claim to be without faults—human perfection is scarcely to be expected—but in the main our ideals are above the purely mercenary. Our aims, our deeds, our very ambitions wait on the physical betterment of humanity. Contrast, if you please, the principles and aspirations of the three great political parties now in the field. Is it really true that either of these parties will stand for those policies whose fruition would be for the greatest good to the greatest number? Note also the manufacturers of inert medicines and misbranded foods; the charlatans who sell their sugar and water at $4 a bottle; and all the hordes of more or less similar parasites who prey on humanity. We might go on enumerating examples where the humane attributes of our natures are made subservient to the greed for gain. Have you ever known a physician so low in degradation as to be found scattering the germs of diseases that he or she might reap a money consideration? There may be some such in our profession, but such exception does not invalidate the rule. On the contrary, the noble physician is ever to be found striving to gain the mastery over disease, that he may thereby save, or prolong human life.

It is not so many decades since we were instructed largely as to methods of treating diseases—not often of treating the patients—but recently we have made wonderful strides in the saving of lives by the prevention of infectious and contagious diseases. Witness if you please: Yellow fever in Cuba, typhoid in army camps, plague in China, California and the Philippine Islands and the reclamation of the great canal zone, where in their attempt to build the Panama Canal the French failed, largely by reason of the terrible inroads of preventable diseases. To-day, in this very locality, we find the mortality rate no higher than in Michigan. Thus from futility to hope; from hope to the realization of the actual prevention of disease—something for which our profession may justly take great pride.

I have alluded to these facts in medical history in order that we might better approach the subject assigned to me: "The Medical Inspection of Schools." It is a subject too comprehensive for me to hope to cover all its numerous phases in detail.

In the first place the schoolhouse should occupy a healthful site, with good drainage, a perfect system for the disposal of excrement, and an absolutely pure water-supply. The interior of the building should be so constructed as to afford good ventilation, plenty of light, a free supply of pure air and an adequate heating plant. Let me here observe that these desirable conditions are scarcely to be had, except by the employment of experts in this field of school construction. I think it safe to assert, that in the rural districts, there is not a single school building in this county that would pass the examination of a sanitary engineer. It follows, therefore, that the laity must be so educated that in the future these defects will be remedied. There is no doubt in my mind but that in a general way the state will soon lend its aid for betterment along these lines. Only recently, we note that the State Board of Health has abolished the common drinking-cup in schools.

Medical inspection of schools, in a concrete sense, means the physical examination of scholars for the purpose of ascertaining if they are suffering from chronic diseases, the results of which may induce mental impairment or future fatal illness; and secondly, to determine the presence of contagious or infectious maladies, and to exclude from school such pupils as may be found suffering from a contagious or infectious disease, or have been directly exposed thereto. Who is this work to be done by? Obviously, the physician is the proper person—indeed the only proper person. It is not always that his services are available, in which event the employment of a well-trained nurse will perhaps best serve our purpose in large centers of population. This arrangement leaves our country schools without

*Read before the Monroe County Medical Society, at Carleton, Mich., Oct. 17, 1912.

inspection of any kind save that given by teachers — ill-informed on medical subjects, or the spread of diseases among children.

What solution have we for this problem? Certainly, if inspection is necessary for our large schools, it is equally imperative that proper consideration be given our smaller schools. In the present state of public opinion, only a partial solution of the difficulty presents itself to my mind; I have reason to believe that nearly all teachers attend their county conventions; and, when thus in convention assembled, let some good physician be employed to deliver to them lectures bearing on the causes and prevention of diseases. This would be helpful, even if it were not all for which we would wish. At such lectures, symptoms could be outlined and plates used to illustrate the various eruptive diseases. Above all, let these teachers be instructed to err on the safe side.

I wish now to refer to the medical inspector who is to assume so important a rôle in school life. Such a person should be above petty jealousies; he should have a well-rounded medical education, and with it, sufficient experience to make a correct diagnosis. As to the ethics of the position, little, if any more, is needed than the precept of the "Golden Rule." Briefly, every case requiring medical or surgical treatment should be referred with a note to the parents of such child, with the request that the family physician be consulted. Under no circumstances should the medical inspector volunteer his services, unless the patient happens to be of a family that employs the inspector.

Let me now direct your attention to some of the conditions and diseases which must be passed on by our inspector. Where there is evidence of impaired vision, the eyes should be examined for near and distant vision, muscular defects and the various forms of conjunctivitis. Cases suffering from acute or chronic purulent conjunctivitis should be excluded from school. Not a few scholars will be found complaining of headache and these headaches are not infrequently due to eye-strain. Such patients will often require the services of an oculist in order to properly correct the defects. The family physician should always select the specialist. It is becoming more and more evident that infectious conditions within the mouth are the cause of not only local trouble, but they may induce more complex disturbances. Diseased teeth should be filled or extracted; and, where not in use, the toothbrush is to be recommended.

The tonsils should be examined. Here permit me to observe, that I am not one who favors the removal of every enlarged tonsil. But if the tonsils are actually diseased, or so enlarged as to impede the breathing, their removal is to be recommended—particularly so, if the child has adenoids. The inspector will be able to generally diagnose the presence of adenoids by the physical aspect of the child: the pallor, mouth-breathing and the deformed chest and throat; to confirm the diagnosis the finger may be gently passed behind the palate, when the growths will be readily felt. Many children with adenoids are deficient in mental aptitude, hard of hearing and slow in learning. In an examination of over thirteen thousand school children in Chicago last year, 42 per cent. were found to have adenoids. It is said that 88 per cent. of deafness in children is due to adenoid vegetations. This one condition alone should appeal imperatively, to us and the public, for the medical inspection of schools. Especially is this true when an operation offers every prospect of a speedy cure.

All children afflicted with scarlatina, diphtheria, measles and pertussis, must of course be excluded from school, and not permitted to return until such time as they can present a certificate of health from the family physician. I think, perhaps, many of us are apt to be remiss in not allowing or recommending sufficient time in quarantine. No child who has had scarlet fever should be suffered to mingle with other children until the physician has made a most careful examination as to the presence of adenitis, catarrh or desquamation. I admit that the prevalence of scarlatina is due to the mildness of the recent epidemics and the carelessness of parents. It seems to me that the Board of Health could afford valuable aid in this matter were they to place in the hands of citizens certain information relative to this, and other contagious diseases. Every child with a rash should be regarded with suspicion; a possible object of danger to itself, to its family and to the community. Pertussis, a common malady, is not devoid of danger; and if actual statistics were available, I feel certain that this disease, directly and indirectly, would be found to be the cause of more deaths than scarlet fever, at least in this county. I would, therefore, favor the exclusion and quarantine of children suffering from whooping-cough. Measles should also be zealously guarded against by actual quarantine.

Small-pox is not likely to come under observation very frequently; but the subject of vaccination calls for our support. We, as physicians, know that vaccination offers the one certain means of stamping out this dreaded disease; and

yet if we attempt to force it, there comes the cry of "personal liberty," etc. We do well to prize our constitutional rights and our liberty to act under those rights, but it does not follow that we are justified in rebelling against regulations that are so plainly for the common good. We make laws to protect society, laws to obviate cruelty to children, and why not a law that every child entering school shall show a good vaccination scar? At Wellesley College no student can enter until she has been vaccinated—a wise regulation this. It is generally admitted that children suffering from tuberculosis should not be admitted to the common schoolroom; not only because of the liability of spreading the infection, but because such commingling does not afford a favorable opportunity for their recovery. We note with pleasure that out-door schools are being provided for these children so that their education need not be neglected, while at the same time, they are receiving proper treatment. Children subject to parasitic skin diseases, mumps or chicken-pox should remain at home until they are no longer a source of danger to others.

It is perhaps to the various forms of inflammatory-throat troubles that the medical inspector's attention will be most frequently drawn. For instance, he will be asked to differentiate between simple infections, streptococcic infections and diphtheritic infections. I think you will agree with me that in their incipiency it is not possible to do this, indeed they may not be diagnosed even at a later period without cultures. It follows, therefore, that the inspector should be dogmatic in his decisions relative to the exclusion of all children complaining of sore throats.

The streptococcic infections, while contagious, are more quickly recovered from than is the diphtheritic, except where antitoxin has been used early. I speak of such recovery—in the case of diphtheria—as objective only, for some of the more recent investigations make it very evident that the Klebs-Löffler bacillus may remain in the throat for weeks after recovery. The patient has become immune, but may still be a dangerous carrier of the disease. If this condition is found to be at all general, the inspector must insist that the child remain out of school until the throat is free from this particular germ. There is another phase of diphtheria which is open to consideration, and that is the so-called membranous croup. Membranous croup means diphtheritic laryngitis—nothing more, nothing less—and every inspector should be governed accordingly.

It is unfortunate that so little attention is paid to hygiene in our common schools, for as you well know, the youthful brain is peculiarly susceptible to impressions, whether by precept, example or suggestion. Why is it then that the fundamental principles of sanitary science by common consent are left to colleges and universities for their study? It has been well said the common school is "The cradle of American Liberty," and as such is it not entitled to every advantage which may conduce to good health?

We are lost in wonder when we contemplate the remarkable inventions of this and other ages; we marvel at and admire these creations, and we spend long years in research that we may understand the scientific principles entering into their construction. This is as it should be. But what of the human body, the most wonderful of all machines, the masterpiece of God's handiwork? Do we not forget, "Oh man, that to know thyself," is knowledge most complete?

In conclusion, gentlemen, I am aware that I have not presented any thing new, and that my methods of covering this subject are doubtless faulty, but, however this may be, I desire to leave with you this one conviction: that we, as physicians, must be found in the forefront as leaders in the effort to create a public sentiment in favor of bettering the condition of our children, both in school and out of school. It may be asked, but of what profit is all of this to the doctor? Of money profit there certainly will be none. However, "it is not all of life to live." There are obligations which we owe to society, obligations to posterity, and a certain respect for those reciprocal relations so necessary to the stability of our social structure. Shall we not also have that inner assurance of having contributed in no small way to the public good, of having been loyal to our Hippocratic Oath, and of having added the example of our zeal to further the evolution of a better child, a better man and a better society?

NOTES ON LIFE INSURANCE EXAMINATIONS *

William J. Stapleton, Jr., M.D.
DETROIT

The word insurance is from the Latin—*securus,* free from care; from *se,* without, and *cura,* care. Life insurance, in contradistinction to other forms, is a term used to cover a variety of transactions, in all of which the uncertainty of human life plays a more or less important part. In its simplest form, a life insurance contract

*Read at the meeting of the Tuscola County Medical Society, February, 1913.

contains an agreement on the part of the "insurer" (the company) to pay a stated sum on the death of the "insured" if that event occurs while the policy is in force. There are, of course, now a great many varieties of insurance so that one may select the kind best suited to the individual case. Life insurance is of great antiquity. In the times of the Greeks and the Romans there were many mutual organizations which sought to assist the individual in times of war and in case of death from plague, etc. These, however, were considerably different from the fraternal orders now in existence.

HISTORICAL

Life insurance, as we know it, is an offshoot of marine insurance. In the early days, the success or failure of a voyage depended largely on the personal qualities of the master; the owners of the ship and cargo took out insurance on the master so that in event of his death they would be recompensed.

The earliest known policy was taken out on the life of one William Gybbon in London, the year 1583.

The earliest life insurance company of which we have definite information was the Mercer's Company of London, established in 1699.

The first company established in the United States was founded in Philadelphia in 1758, and was called the Presbyterian Annuity and Life Insurance Company. It is now known as the Presbyterian Fund Life Insurance Company.

Up to the year 1840, there was little business done; then during the next ten years, up to 1850, several of the companies now doing business were organized, namely, the Mutual Life of New York in 1842, the New York Life in 1845, and others. Now there are several hundred companies organized to transact the various kinds of insurance business.

REASON FOR MEDICAL SELECTION

As has been stated, the fundamental principle of life insurance is the indemnification of a family of an individual against the pecuniary loss incident to his death; but, as this must be furnished at the lowest cost consistent with safety, it must be based on scientific and exact methods. The laws governing mortality must be thoroughly understood, and influences leading to unusual or extensive fluctuations in such mortality must be absent or reduced to a minimum. One of the methods used to minimize the mortality is by means of medical selection. This is where the medical examiner enters the scene.

In early insurance there was no medical examination and even now there are some people connected with insurance companies who think a medical examination unnecessary. Needless to say I am not one of them.

The early applicant signed a certificate saying he was in good health. He appeared in person before the trustees who might accept or reject him. Thus, you see, the method in vogue in the by-gone days was quite different from now. The importance of medical selection was not fully recognized until the latter half of the nineteenth century; although, credit is to be given to the Equitable of London (1762). In this country the Mutual Life of New York, in the year 1867, established a system of medical referees, who in turn appointed examiners for the different localities.

THE MEDICAL EXAMINER

Much has been written on the subject of the medical examiner and his qualifications. He is a very important person in insurance work. To him comes the applicant after the agent has secured the business. The qualities desired by an insurance company of its examiner are many and diversified.

He must be a thoroughly qualified man, possessing courage, firmness, decision, shrewdness and tact. It is his duty to prove or disprove the statement that the applicant before him is in good health; a problem exactly the opposite of the one before the physician in general practice.

There is a vast difference in making a physical examination when the patient comes for advice and when he is examined for insurance. In the first instance, the patient will tell his physician every symptom that he has, and frequently more; but an applicant for insurance will tell only what he has to. He does not usually intend to conceal facts wilfully, but he thinks it is the business of the examiner to dig out the information desired as best he can. Here is where the skilful examiner gets the truth.

May I call your attention to the following; it is a clipping entitled, "Life Insurance Examinations":

"It was recently said by the physician-in-chief of a large life insurance company, that on investigation it was found that with all their examiners only 25 per cent. of the applicants were completely examined. In other words, histories were poorly and inaccurately taken, the heart and chest were frequently examined without the patient removing his clothing and special examinations of blood-pressure, urinalysis, etc., were very carelessly made. This criticism not only reacts on the individual doctor, but makes an extremely poor impression on many business men connected with insurance companies, and on the applicant examined. To be appointed examiner for a life insurance company is not only an honor and a responsibility, but it is a legitimate practice. The man without a physician

often takes for his family doctor some physician who has examined him for life insurance. Insurance companies are now making rigid investigations of their examiners, and it behooves every practitioner who does insurance work to do the work for which he is well paid thoroughly accurately and conscientiously.[1]

THE QUESTION OF FEES

There has been a great deal of agitation in the medical journals regarding the fees paid by various companies for medical examinations. I am in favor of the flat five-dollar rate, and have had several arguments with the board of directors relative to the same. The fee bill of the Northern Assurance Company is as follows:

When the amount of the policy is over $3,000 fee..	$5.00
When the amount of the policy is for $3,000 or less	3.00
For microscopical examination of the urine.....	2.00
Each requested additional analysis of urine.....	.50
Preparing sample of urine to send to home office	.50

Fees are based on the cost of insurance and the amount written; thus, the company can pay more for a $5,000 policy than a $3,000 policy, because of the larger premium received. The fee table given above is that of the American Life Convention, and is in force in over a hundred companies.

THE EXAMINER AND THE AGENT

The agent is a source of annoyance oftimes to the examiner. The physician does not always realize the hard work done by an agent before he signs up the applicant. The examiner should be prepared to act as quickly as possible in making examinations. It is not always possible for an agent to arrange for the examination to be made at the time most convenient to the examining physician—this we should recognize, and unless we do so, we should not take the position of medical examiner. Good agents try to arrange a time that is mutually agreeable, and the better the agent the less trouble we have.

It is well to acquaint the agent with your office hours so that he may, as much as possible, meet your convenience.

If you examine for more than one company, be neutral; for if you do not, the agent of another company cannot regard you as best fitted to do his work. Remember the Golden Rule applies here as elsewhere.

THE EXAMINER AND THE APPLICANT

It is a serious matter for a man to be turned down by an insurance company. "Once an applicant is rejected it is almost impossible for him to obtain insurance. You can see, therefore, the great injustice that may be done a person by lack of care on the part of the examiner. Every applicant is entitled to a careful and conscientious examination and a fair and full statement of all facts affecting his insurability."[2]

One often creates hard feelings or even enemies where it happens that unfavorable action has been taken on applications, but this must not prevent the examiner from doing his duty.

THE MEDICAL EXAMINER AND THE MEDICAL DIRECTOR

The medical director can take nothing for granted—he is examining applications, not applicants, and unless every question is answered as it should be he is unable to pass on it properly. The medical examiners are the eyes, ears and judgment of the medical department at the home office. Each examiner is a little piece of the medical department, set down in his own particular locality, and, if he can translate his judgment of a risk onto a sheet of paper in such terms as to make it clear and precise to the medical director, he is then doing perfect work as a medical examiner.

The medical director is only human and oftentimes makes mistakes. The examiner can help a great deal by realizing that the medical director does not see the applicant and depends on him for the mental picture that is necessary in order that a basis may be had for decision.

THE EXAMINATION

What shall we say of this important part of our talk? I am not going to make any attempt at teaching you men your work, but simply wish to suggest the following thoughts which come to mind after reviewing applications for the last five years:

First, the question of:

Appendicitis.—In answering always state number of attacks; whether abscess formed; and, especially whether an operation has been performed. If so, whether the appendix has been removed or not, and duration of treatment.

Syphilis.—State length of time lapsed since end of treatment; examine carefully for any evidence—five years time to elapse before any form of acceptance. Examine the epitrochlear and suboccipital gland.

Use of Alcohol.—Always obtain a definite answer as to the amount taken; avoid such terms as "several drinks," "drinks when he feels like it," etc. They convey absolutely no meaning. There are so many kinds of drinkers that a definite answer is necessary.

"Keeleyites."—They are looked on with disfavor. As a rule they are rejected; some companies will accept them after a period of five years, if it can be proven beyond a doubt that the applicant has not taken liquor during that time. Any man who has been an alcoholic is not a first class risk; they are too apt

1. Old Dominion Journal of Med. and Surg.

2. Greene, Life Insurance Examinations.

to go back to "John Barleycorn," especially, if they suffer business reverses or have any worry or trouble. Reformed drinkers show a heavy mortality in all cases.

Nervous Troubles.—Look out for insanity, delirium tremens, chronic alcoholism or some organic disease.

Rheumatism.—Always state clearly the form of rheumatism, the date and number of attacks, joints affected, duration of illness, and especially find out whether the heart has been affected. One severe attack of inflammatory rheumatism calls for a two-year postponement; repeated attacks mean rejection. It is well to ask whether a surgical operation has been performed or not; by this question the examiner may find that the pericardium has been aspirated; or, an operation for septic or tubercular joint performed. Renal colic, Bright's disease, acute and chronic pyelitis, mucous colitis, uterine and ovarian disease, chronic sciatic, abdominal aneurysm, spinal caries are sometimes called rheumatism by the applicant.

Headaches.—Headache is only a symptom pointing to some derangement elsewhere in the system.

As we know, headache may be due to disease of the brain, Bright's disease, neuralgia, nervousness, lithemia, eye strain, cerebral congestion, chronic lead poisoning, auto-intoxication, syphilis, chronic otitis, nasal catarrah, carious teeth, uterine or ovarian disease, anemia, dyspepsia, etc. It is, therefore, important that the examiner designate, if possible, the cause of the headache. A little judicious questioning will often bring out the desired information and clear up a mooted point.

On our blank we ask two questions which give to the examiner valuable information with very little effort—first, the knee-jerk, and second, the eye-reflex.

Knee-Jerk.—The patella reflex is nearly always present in health and its absence points especially to locomotor ataxia (syphilis); although, it may be due to peripheral neuritis, poliomyelitis, advanced diabetes mellitus, and, any and all diseases involving the posterior column of the cord or the second, third and fourth posterior nerve roots of the lumbar segments. It has been found lacking by Greene in several cases of aneurysm of the aorta. This simple procedure you see has a wide range of application.

Eye-Reflex.—Abnormalities in response to light and accommodation point to locomotor ataxia, aneurysm of the aorta, general paralysis of the insane and brain tumor.

A marked contraction of pupil occurs in locomotor ataxia and in chronic opium users.

BLOOD-PRESSURE

The use of the sphygmomanometer, or the blood-pressure apparatus, is becoming more and more called for in practice and insurance work. Many of the companies are making it a routine in all examinations where the amount is over $2,500, and the applicant 40 years of age.

It behooves us to become familiar with the working of this instrument. There are several types of apparatus in the market. Two principal kinds are, the mercury column and the spring type. We have both forms; personally, I prefer the "Tycos," it is convenient to carry and use, and I see no reason to doubt its accuracy.

The normal blood-pressure maximal (systolic) in adults varies from 105 to 145 millimeters. In children over 2 years of age, from 85 to 110 millimeters. In females the pressure is about 10 millimeters less than in males. In normal minimal pressure ranges from 25 to 40 millimeters below the maximal pressure. The normal pulse ranges from 25 to 40 millimeters. The systolic pressure above 150, or below 100 millimeters, and a pulse-pressure above 50, or below 20 millimeters may be regarded as pathological.

Variation in Health: The blood-pressure varies at different times of the day, and is affected by position, exercise, excitement, digestion, etc.; but as these are transitory factors, repeated examinations will lead to their elimination.

The maximal pressure represents heart energy. The minimal pressure represents the peripheral resistance (vasomotor), while the pulse-pressure (the difference between the maximal and minimal pressure) represents the head of pressure in the arteries tending to drive the blood onward into the peripheral arterioles.

Arterial Hypertension: Conditions having an abnormally high arterial tension are due to a variety of causes, chief of which are mentioned: excesses of various kinds, particularly mental or physical overwork, overeating, alcohol and drugs, following the acute infectious diseases—especially typhoid and scarlet fever, syphilis and plumbism. The principal primary cause of most of such cases may be summed up as an intoxication of some kind.

In individuals past middle life, hypertension is frequently associated with great and untiring energy, and it is interesting to note how commonly cases of sudden death occur where the patient has remarked shortly before that he never felt better in his life.

The effects of hypertension on the heart is to force it to do an increased amount of work in order to maintain the same intensity of capillary circulation; while for the arteries hypertension diminishes their distensibility, and the sharp rise in pressure at every systole introduces the danger of rupture or aneurysm.

For our purpose, cases of hypertension may be divided into: (1) Early cases manifesting no other evidence of distinct disease; (2) those cases where there is other evidence that degenerative changes have already taken place.

In the first group, the hypertension is frequently found in those individuals who otherwise seem to be in good health; and is usually first discovered on application for life insurance, or

when examined for some other condition. Since the use of the sphygmomanometer has become more general, it has been found that these cases occur quite commonly, which indicates the need of a blood-pressure examination in every new case coming to the physician.

Early cases of hypertension lead to degenerative changes in the arteries, and its consequences — cardiovascular and renal disease — and their early recognition and proper treatment calls for the best efforts of the scientific and pains-taking physician.

The second group comprises those cases in which the hypertension is usually accompanied by other symptoms, subjective or objective, which may lead to a diagnosis of one or more of the diseases associated with a high blood-pressure. The information gained from frequent examinations of the arterial pressure in these cases—not only for the purpose of diagnosis, but also for the purpose of establishing the progress of the disease, and as a guide to the effectiveness of the treatment instituted—is of inestimable value.

Hypotension is found in almost all cases of moderately advanced tuberculosis, or in early cases when the toxemia is marked; except when arteriosclerosis, the so-called arthritic or gouty diathesis, chronic nephritis or diabetes complicate tuberculosis and bring about a normal pressure or hypertension. Examination revealing a minimal pressure of below 20 millimeters would indicate a serious pathological condition. These cases should be kept under observation.

CONCLUSIONS

To sum up my paper I offer the following suggestions:[3]

1. Answer all questions.
2. Give necessary details.
3. Look carefully into the habits of the applicant.
4. Answer correspondence promptly.
5. Show an interest in the interests of the company.
6. Show as much skill as you can in diagnosing.

Gentlemen, if what I have read to you is not new and you have heard it before, I can only say with Kipling:

"When 'Omer smote 'is blomnin' lyre
He'd 'eard men sing by land and sea,
An' what 'e thought 'e might require
'E went and took — the same as me."

176 Lafayette Boulevard.

3. Rogers: Laneet-Clinic, Sept. 21, 1912.

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MEDICAL JURISPRUDENCE. WORKMAN'S COMPENSATION ACT*

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Medical jurisprudence is sometimes known as forensic medicine. The former title emphasizes the legal part of the subject, the latter title, the medical part. The former is a more appropriate title for the present paper because the legal, rather than the medical, aspect of the subject will be made more prominent.

In this paper I shall not attempt to cover the whole subject, but shall deal chiefly with the physician and surgeon as an expert witness, both in court and under the provisions of the Workman's Compensation and Insurance Law, together with the expert's pay as such; treating incidentally the subject of privileged communications. These subjects will be discussed with a special reference to the law of Michigan.

EXPERT TESTIMONY

The use of expert testimony is one of the most important and striking developments of modern jurisprudence. The old common law of England recognized the right of parties to call as witnesses those who were especially skilled in or familiar with any particular art or science, in order to explain words or phrases having a peculiar meaning in such art or science.[1] From this has developed the practice of calling experts in mechanics to give opinions in patent cases, and experts in medical science to give opinions in cases involving medical questions. The rule admitting the testimony of experts is exceptional, for no principle of law is better settled than that the opinions of witnesses are, in general, inadmissible in evidence.[2] "It is the peculiar province of the jury to determine the inferences which are to be drawn from the facts."[3]

*Read before the Bay County Medical Society, Feb. 11, 1913.

1. Syst. of Legal Med., 13.
2. Daniels vs. Mosher, 2 Michigan, 283.
3. Rogers on Expert Testimony, Section 3.

The rules of science about which the expert is examined are considered facts just as much as are the other facts testified to by witnesses from their senses of sight and hearing. In certain domains of science it is possible for men of equal attainments to differ in their view as to the rules applicable to a given state of physical or mental phenomena presented to them; hence, comes the sphere of what is called opinion evidence.[4]

WHEN ADMISSIBLE

The opinions of experts are admissible in evidence in those cases in which the matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment on them, for the reason that the subject matter so far partakes of the nature of the science, art or trade, as to require a previous habit, or experience, or study in it, to acquire a knowledge of it.[5, 6]

WHEN INADMISSIBLE

The testimony of experts is not admissible on a matter concerning which, with the same knowledge of the facts, the opinion of any one else would have as much weight.[7, 8, 9] Neither is the testimony of experts, who have made *ex-parte* investigations admissible. Hence, it is important that notice should be given to the opposing interest of the intention to have experts make an investigation of the facts involved. For instance, if it is proposed to make an examination of blood on clothing; or, of the stomach of a deceased person in cases of alleged poisoning; there are strong reasons why such an examination should be undertaken after notice has been given, in order that the divers interests might be properly represented at such an examination.[10] This rule is one for you gentlemen to bear in mind when asked to make any such examination on behalf of a private individual, or interest. The principle does not apply, however, to investigations conducted by a public officer immediately after the commission of a crime, for the public action of such a functionary is said to be due notice to all parties that the proceeding is taking place.[11]

COMPETENCY OF EXPERTS

You have noticed, of course, when examined as expert witnesses, that your qualifications as an expert are first inquired into. This is in order to determine your competency as an expert; for it must be shown that the expert has special and peculiar knowledge or skill in his department before he can be permitted to give opinion evidence.[12]

In this preliminary examination, the witness may be asked to state his acquaintance with the subject matter in reference to which his opinion is desired, and what he has done to qualify himself as an expert in that particular department of inquiry;[13] but there is no exact test for determining the amount of experience an expert should possess.[14] A witness is not incompetent to testify as an expert if his special knowledge of the particular subject of inquiry has not been derived from experience or actual observation, but from the reading and study of standard authorities. But, such reading and study must be in the line of his special calling or profession. Thus a lawyer would not be competent to express an opinion on a question of medical science, from information which he might acquire from reading medical authorities bearing on such question.[15] But a physician would be competent to give his opinion on a medical question from information derived by him from reading medical authorities on that question.

RULES FOR EXAMINATION OF EXPERTS

It being determined by the court that the witness introduced possesses special skill in the subject matter of inquiry, his examination is next in order, and this must proceed in accordance with the rules that it has been necessary to establish in relation to the giving of such testimony. In considering these rules, it must be borne in mind that the purpose of the examination of the expert is not to decide the question as to the guilt or innocence, the liability or non-liability, of the defendant in the case. That is a question for the jury. The purpose of the examination is to give the jury the conclusions of medical science in reference to the facts involved.

So it is necessary that questions to experts should be so framed as not to call on the witness for a critical review of the testimony given by the other witnesses, compelling the expert to draw inferences or conclusions of fact from the testimony; or, to pass on the creditability of the witnesses; the general rule being: that an expert should not be asked a question in such a manner as to cover the very question to be submitted to the jury.[16]

4. Syst. of Legal Medicine, Section 15.
5. Hill vs. Lafayette Insurance Company, 2 Michigan, 476.
6. Rogers on Expert Testimony, Section 5.
7. Rogers on Expert Testimony, Section 8.
8. Opinions based on speculative data are not admissible.
9. Cooper vs. State, 23 Texas, 336, 337.
10. Rogers on Expert Testimony, Section 14.
11. Ibid
12. Rogers on Expert Testimony, Section 15.
13. Rogers, Section 18.
14. Rogers, Section 19.
15. Rogers, Section 20.
16. Clark vs. Detroit Locomotive Works, 32 Mich., 348.

HYPOTHETICAL QUESTION

An expert, not being allowed to draw inferences, or conclusions of fact from the evidence, his opinion should be asked on a hypothetical statement of facts.[17] The rule is that the witness must either be present and hear all of the testimony and take it all into consideration in answering the question, or the testimony must be summed up in the question put to him; and, in either case, the question is put to him hypothetically, whether, if certain facts testified to are true, he can form an opinion, and what that opinion is.[18]

We have now come to the discussion of a much criticized feature of expert testimony, namely, the hypothetical question. In a recent number of the *Saturday Evening Post* (Dec. 7, 1912), the following description of its use is given:

"The jury being chosen, the trial proper now begins and continues until the defendant's cash reserve runs low. Then the big scene comes—the hypothetic question is brought in on a truck and is read to the alienists. In every murder trial where insanity is the defense, alienists are introduced. They should not be confused with the alienators who figure in divorce cases only.

"An alienist is a family doctor who hated the nightwork. He mounts the stand and the hypothetic question is read to him. A hypothetic question is organized on the same principle as a certain train that used to run on a narrow-gauge road down in our country years ago. You could climb aboard anywhere, go as far as you pleased, enjoy a pleasant nap en route, and drop off at a point that looked exactly like the one where you got on. So it is with a hypothetical question. Outside of persons who were alienists by profession, I never knew but one man who ever tried to make out the true meaning of a hypothetical question. He came by this tendency honestly. It was in his blood. He was a cousin of the man who wrote the Lord's Prayer on the back of a postage stamp; and his uncle was the person who spent two years figuring out the number of seeds in a prize pumpkin in order to win a cash prize of five dollars.

"A good, long hypothetic question, though, which reads the same backward or forward, will hold an alienist spell-bound by the hour, and when it is finished he invariably has the right answer. I never knew of an instance where the alienist failed to make the answer that was agreeable to the side for which he was working."

A number of forcible objections against the use of the hypothetical question are brought out in the quotation just read. It is also contended that this form of question assumes as proved whatever the attorney putting the question has tried to prove, and combines insignificant, with important circumstances and alleged facts, supported by slight testimony, with other facts of which the proof is strong and convincing, while omitting still other facts of equal importance which might be thoroughly established by the other side. In fact, this form of question is nothing more than a summing up by the counsel putting all the allegations of fact in his favor, no matter by how little evidence supported, and omitting all other facts, no matter how clearly established. Expert testimony, based on such one-sided hypothetical questions, is of necessity favorable to the questioner and accounts for much of the seeming inconsistency of able and learned expert witnesses.

It has been suggested as a remedy for the evil complained of, that the hypothetical question be framed by the judge, based on the testimony of each side, and that the witness be asked to give his opinion on each theory. This suggestion would only partially obviate the difficulty, because the judge would be called on to decide what facts had been established by either side. So long as the issue is to be decided by a jury, there seems to be no escape from the necessity of hypothetical questions in some form. If the hypothetical question is so put as to require the witness to decide from the evidence which side preponderates, and to find conclusions from the evidence, in order to reconcile conflicting facts, the question, though hypothetical, is improper.[19]

After the attorneys on the side which called the expert as a witness have propounded their hypothetical question, opposing counsel on cross examination may put the same question to the same witness based on the facts assumed in the opposing theory. It is good practice for the expert to request the counsel calling him to submit the hypothetical question to him in writing before he is put on the stand. This, of course, cannot be required of the opposing counsel who cross examines him.

While the court determines the competency of the witness to testify as an expert, the weight to be accorded to his testimony is a question for the jury. The opinion of an expert cannot be considered of material value, unless the hypothetical question put to him is fully sustained by the evidence. There is no rule of law to require jurors to surrender their judgment implicitly to, or even to give a controlling influence to the opinions of scientific witnesses, however learned or accomplished they may be. The testimony of experts is to be considered like any other testi-

17. Rogers, Section 25.
18. Dickinson vs. Fitchburg, 13 Gray, 546, 556.
19. Rogers, Section 26.

mony, and is to be tried by the same tests, and receive just so much weight and credit as the jury may deem it entitled to; when viewed in connection with all the circumstances of the case.[20]

MOMENTARY OR TEMPORARY INSANITY

Much of the criticism of expert testimony has come from its use and abuse in murder cases, as a basis for the defense of momentary or temporary insanity, sometimes called "brain storms." This defense really amounts to a little more than inexcusable and uncontrollable anger. It is usually made use of in extreme cases, such as those based on the "Unwritten Law." This alleged "Unwritten Law" is often invoked where the accused has slain the seducer of his wife or other relative. The legal profession well knows that there is no such thing as the so-called "Unwritten Law." They also believe that there is no such thing as a "brain storm," but realize that for a good fee an expert alienist can be induced to describe such a mental tempest. It seems absurd to call medical experts to prove or disprove the proposition that a man who is perfectly sane a moment before the act and perfectly sane the moment after it, can temporarily be bereft of his reason by rage or indignation so as not to be responsible for his acts. This seems to be a question of common sense and common experience which a jury are competent to decide for themselves. It would also be treated as such were it not for the fact that gentlemen of our profession seem always able to persuade gentlemen of your profession, with the aid of a proper fee, to treat the question as a scientific and medical one on which they are competent to give expert testimony. Of course, it is true that our profession, so far as they furnish judges to the land, are responsible for letting your profession earn comfortable fees by raising a question of common sense into the dignity of a medical fact. Perhaps the reason we are so tolerant, is because we enjoy fat retainers ourselves.

PRIVILEGED COMMUNICATIONS

In connection with the testimony of medical men, both as experts and otherwise, in some cases, arises the question of the privilege of the patient. The laws of Michigan provide:

"No person duly authorized to practice physic or surgery shall be allowed to disclose any information which he may have acquired in attending any patient, in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon: Provided, that after the decease of such patient, in a contest on the question of admitting the will of such patient to probate, the heirs at law of such patient, whether proponents or contestants of his will, shall be deemed to be personal representatives of such deceased patient for the purpose of waiving the privilege hereinbefore created."—Act 234 of 1909.

The object of the statute is to prevent the abuse of the confidential relation existing between the physician and his patient, and is for the protection of the latter. Where the relation is such that no confidence is reposed, there is none to be abused. The law was passed to enable persons to secure medical aid without betrayal of confidence. The information referred to is not confined to communications made by the patient to the physician, but the law protects, with the veil of privilege, whatever, in order to enable the physician to prescribe, was disclosed to any of his senses, and which in any way was brought to his knowledge for that purpose. All disclosures made by the patient to the physician respecting his ailments are privileged, whether they are necessary to enable the doctor to prescribe for him as physician or not. The privilege does not cover information not necessary to enable the doctor to prescribe for his patient, unless it is in respect to his ailments. Thus, a physician may testify that he is the family physician of a patient and tell the number and dates of his professional visits. The fact as to treatment by the physician is not a matter of privilege. The privilege is personal with the patient, and is of no force if the latter consents to a disclosure. It is not the doctor's privilege and it continues indefinitely. The privilege may be waived and must be claimed before the testimony is admitted, or it is waived. What the patient may do in his lifetime, those who represent him after his death may do for the protection of the interest they claim under him.[21]

REGULATION OF EMPLOYMENT OF EXPERTS

The laws of Michigan have also undertaken to regulate the employment of expert witnesses. In 1909, an act was passed providing that no expert witness should be paid or receive as compensation in any given case, for his services as such, a sum in excess of the ordinary witness fees provided by law, unless the court before whom such witness is to appear or has appeared awards a larger sum. Any witness who directly or indirectly receives a larger sum than such award, and any person who pays such a witness a larger sum than such award is made guilty of a misdemeanor, punishable by

20. Rogers, Section 37.

21. Notes to Section 10181, Compiled Laws of 1897.

a fine not exceeding one thousand dollars, or by imprisonment in the county jail not to exceed one year, or both, in the discretion of the court and may further be punished for contempt. This act is declared not to be applicable to witnesses testifying to the established facts or admissions of science, nor to any other specific facts, but only to witnesses testifying to matters of opinion. You gentlemen should, therefore, bear in mind that you are not at liberty to agree on or charge more than the ordinary witness fee of one dollar per day for your services as an expert witness in any given case, but are always at liberty to leave the matter to the court to determine either in advance or after your appearance as an expert witness. This, of course, does not forbid you making a charge to counsel for consultation previous to trial, or for the examination of the parties to the case. Such matters are aside from the appearance as a witness in court.

The same law provides that no more than three experts shall testify on either side as to the same issue in any given case—except in criminal prosecutions for homicide—but the court may permit an additional number of witnesses to testify.

The law attempted to provide for the appointment of three designated persons to investigate issues involving expert knowledge or opinion in murder cases and to have their compensation paid by the county—the fact that they were the experts appointed by the court to be made known to the jury—but this provision was held unconstitutional by our Supreme Court as tending to deprive the accused of his liberty without due process of law.[22]

In this decision our Supreme Court said:

"We do not overlook the fact that the statute here considered was designed to correct an evil long recognized as tending to bring the administration of the criminal law into disrepute, in cases where insanity is urged as a defense, but we are of opinion that the true remedy for this evil rests in the development of a livelier sense of responsibility to the public for the proper and decent administration of justice on the part of both the legal and medical professions, rather than in revolutionary legislation."

WORKMAN'S COMPENSATION LAW

We now come to one of the most interesting and at the same time beneficent pieces of legislation adopted in this state in recent times, namely, the workman's compensation act. It is appropriate to be referred to in this paper because of the references therein to physicians and to medical examinations. Let us see in the first place what the act in general is. The title of the act indicates that it relates to the liability of employers for injuries or death sustained by their employees; provides compensation for such injuries or death; a method for the payment of the same, and establishes an industrial accident board to administer the law. The act applies to municipal corporations, including state, county, city, township, village and school district, and to such other employers of labor, whether person, firm or corporation, as shall elect to come under the act. The act makes the acceptance of its terms by employers of labor very desirable by taking away from them in any actions for damages brought by employees the strongest defenses formerly interposed to such actions on the part of employers. In other words, any employer of labor who has not accepted the provisions of the act, cannot urge the following defenses:

(a) That the employee was negligent, unless such negligence was willful.

(b) That the injury was caused by the negligence of a fellow employee.

(c) That the employee had assumed the risks of his employment, or arising from the failure of his employer to provide safe premises and suitable appliances.

The act does not apply to suits to recover damages for personal injuries sustained by household servants and farm laborers. All other employees whose employers have accepted the provisions of the act are subject to it; unless the employee has given notice to his employer that he does not wish to come under it.

An "Employee" is defined in the act to be: first, every person in the service of a municipal corporation under any appointment, or contract of hire, express or implied, written or oral, except any official of such municipality, and provided that one employed by a contractor, who has contracted with the municipality, is not considered an employee of the municipality; second, every person in the service of another under any contract of hire, express or implied, oral or written, including aliens and minors who are legally permitted to work under the laws of the state, but not including any persons whose employment is but casual or is not in the usual course of the trade, business, profession or occupation of his employer. As an illustration of the persons meant by the last exception, we may take a man who is employed by a physician to clean his sidewalk. Such an employee would not be covered by the law because his employment was only casual and was not in the usual course of his employer's profession.

An employee who is injured in the course of and as a result of his employment, unless by reason of his own intentional and willful conduct, is entitled to receive certain stipulated compensation, which is carefully laid down in the act. No compensation is provided for any injury which does not incapacitate the employee for at least two weeks from earning full wages, but if incapacity extends longer than two weeks, compensation begins on the fifteenth day after the injury, but if the disability continues eight weeks or longer, the compensation is computed from the date of the injury. During the first three weeks after the injury, the employer is required to furnish, or cause to be furnished, reasonable medical and hospital services and medicines when they are needed.

If death results from the injury, as a proximate cause, the employer must pay to the dependents of the employee, who were wholly dependent on his earnings for support at the time of the injury, a weekly pay-

22. People vs. Dickerson, 17 D. L. N., 1044; Act 175, of 1905.

ment of one-half his average weekly wages, but not more than ten dollars nor less than four dollars per week for no less than 300 weeks from the date of the injury. If the dependents are only partly dependent on the employee's earnings for support, the weekly compensation is to be in proportion to the contributions by the employee to the dependent person. Dependents include only husbands, widows, lineal descendants or ancestors, brothers or sister. In case there are no dependents, the employer must pay the reasonable expense of the last sickness and burying, not to exceed $200. If totally incapacitated, a weekly compensation is provided of one-half the average weekly wage but not to exceed ten dollars or less than four dollars a week, but not for longer than 500 weeks nor more than a total of $4,000. For partial incapacity, one-half the difference between the average weekly wage before and after the injury is provided. For certain specified injuries, such as the loss of a thumb, a definite schedule of compensation for specified periods is provided: the schedule looking much like those attached to accident insurance policies. If death ensues after an accident, the weekly indemnity ceases, and death benefits are provided. Savings or insurance, or other benefits, if received by the employee or his family, are not to be considered.

The act provides for an industrial accident board consisting of three members appointed by the governor. This board has an office in Lansing, and is the tribunal established to administer the law. The acceptances of the act by employers are made to, and recorded by, the board. If an accident happens to an employee, he must give notice to the employer within three months and must make claim for compensation within six months, or in case of death, or of physical or mental incapacity such claim must be made within six months after death or the removal of the physical or mental incapacity. The notice is to be in writing and to state in ordinary language the time, place and cause of the injury. Want of such written notice is not fatal, if the employer had actual notice or knowledge of the injury. If after the notice is given, the employer or his insurance company, and the employee, come to an agreement concerning compensation, a memorandum of such agreement must be filed and approved by the board. If the agreement is not reached, either party may notify the board who then call for the formation of an arbitration committee, which consists of one member of the board, who acts as chairman, and two other members named respectively by the two parties. The committee of arbitration makes such inquiries and investigations as it deems necessary, holding its hearings at the locality where the injury occurred. Its decision is final unless a claim for review is filed in seven days, in which case the board reviews the decision of the committee. The supreme court of the state has power to review questions of law involved in any decision by the accident board.

Every employer accepting the provisions of the act has the right to specify, subject to the approval of the board, one of the following methods for the payment of compensation under the act: First, on furnishing such proof of his solvency and financial ability to pay the compensation, to make such payments direct to his employees; or second, to insure against such liability in an employers' liability company organized under the laws of or authorized to do business in Michigan; or third, to become a member of the mutual liability insurance organization administered by the commissioner of insurance of the state.

The purpose of the act is to afford employees speedy, effective and inexpensive collection of damages. Services of a lawyer are not necessary on behalf of the employees. Calling on the industrial accident board a few weeks ago, I was surprised to learn the volume of their business. They have reported to them on an average of over twelve fatal accidents per month and 500 non-fatal accidents. They have on file about 5,000 acceptances of the act by employers and also copies of all policies of employers' liability insurance. The state insurance department is at the same time conducting an employers' mutual liability insurance company, which is designed to furnish cheap insurance for those who avail themselves of its benefits. Whether this will be done successfully remains to be seen and depends largely on how many employers take advantage of it. At present, there have not been many employers who have taken advantage of the state mutual insurance feature of the law.

DUTIES OF PHYSICIANS UNDER THE COMPENSATION LAW

Let us now take up the different provisions of the workmen's law, which provide for the employment of physicians and surgeons, and relate to their compensation.

I have already noted that during the first three weeks after the injury, the employer is bound to furnish, or cause to be furnished, reasonable medical and hospital services and medicines, when they are needed (Section 4). This means that the employer may select the physician and must pay him. In case death ensues the total compensation for the injury and death is to be determined, exclusive of medical and hospital services and medicines furnished as above provided (Part 2, Section 12).

After an employee has given notice of an injury, and from time to time thereafter, during the continuance of his disability, the employee is required, if requested by the employer or the insurance company carrying the risk, or the commissioner of insurance, to submit himself to an examination by a physician or surgeon furnished and paid for by the employer, the insurance

company or the commissioner, as the case may be. The employee has the right to have a physician provided and paid for by himself present at the examination. If he refuses to submit himself for the examination, or in any way obstructs the same, his right to compensation is suspended, and his compensation during the period of suspension forfeited. Any physician who makes or is present at any such examination, may be required to testify under oath as to the results thereof (Part A, Section 19). Besides this, the industrial accident board or any member may appoint a duly qualified impartial physician to examine the injured employee and to report. The fee for this service under appointment from the board is $5 and traveling expenses, but the board may allow additional reasonable amounts in extraordinary cases. In fact, the fees and payment thereof of all physicians for service under the act, is subject to the approval of the industrial accident board (Part 3, Section 10).

The consequence to the workman of refusing to be examined by the physician of his employer are, as above noted, very serious, and may result in the suspension of his compensation. If an employee refuses to be examined by the physician of his employer, unless his own medical adviser is present, he is not held to refuse to submit himself to such examination, or obstruct the same. But this demand for the presence of the workman's personal medical adviser must be reasonable. When a workman makes demand when there are no special circumstances in the case calling for the presence of his medical attendant, his action may amount to refusal within the meaning of the act. "The purpose of the examination is a legitimate and proper purpose. It is that the employer may obtain from the man of skill an opinion as to the worman's then condition in order that he may consider whether he will be a party to a litigation, or will agree to give reasonable compensation without litigation to the man who has been injured."[23]

An attorney's office is not, under ordinary circumstances, a proper place in which to hold a medical examination. A refusal to undergo an examination except in the presence of one's attorney may amount to refusal to undergo an examination at all. This was the conclusion in a case where a workman, in receipt of compensation under the act, was required by his employers to submit himself for examination by a certain duly qualified medical practitioner, and the workman refused to do so unless the examination was held at the office of his attorney, or in the attorney's presence. The employers repeated the request, but stated that the medical adviser of the workman might attend the examination. His refusal to submit to the examination unless these conditions were complied with, was held a refusal to submit to examination within the meaning of the act.[24]

Cases also arise where a workman refuses to undergo an operation recommended by the physician appointed by his employer or by the board. It may be said generally that where a workman refuses to undergo a reasonable and safe operation, which will remove or relieve his incapacity, his continued inability to work at his trade is the result of his refusal of remedial treatment and not the result of the original accident. The employer in such a case has the burden of showing that the operation would have accomplished its purpose. The employee may justify his refusal to submit to such an operation on the ground that, in good faith, he followed the advice of his own doctor, whose honesty and competency are not impeached and this, although the balance of the medical testimony given at the hearing was to the effect that the operation was one which might reasonably and properly have been performed. The employer also has the burden of proof that the refusal of the workman was unreasonable.[25]

It is the holding in one of the cases that the unexpected death of the workman from the effect of an anesthetic administered in the course of treatment of an accidental injury was a death from accident. The test of the question whether death was caused by accident in such a case is whether the operation was a reasonable step to be taken to obviate the consequence of the accident.[26]

An injured workman is not to be deprived of compensation in all cases where his condition is in some measure due to defective treatment. Whether the condition of the workman is due to such defective treatment is usually a question of fact.[27]

None of these interpretations of the act, that I have quoted, have been made in Michigan; but are interpretations put on similar acts in other jurisdictions. It is reasonably to be supposed that our own board and court would follow these decisions.

23. Boyd, Section 556.

24. Boyd, Section 557.
25. Boyd, Section 448.
26. Boyd, Section 450.
27. Boyd, Section 464.

EXTRACTS FROM REPORTS TO THE MAYOR OF FLINT ON GARBAGE AND SEWAGE DISPOSAL IN GERMANY

C. B. Burr, M.D.
FLINT, MICH.

Until to-day I have had no opportunity to investigate the matter in which yourself and the commission on garbage and sewage disposal are interested. We came about as direct as possible to Munich, stopping for a day each in Antwerp and Rotterdam, then faring forth to Frankfurt. From there, the day following we found ourselves enroute to Munich, the, to me, most comfortable city in the world in which to live for a brief season away from home. There are the music, the art, the unconventionality, the hospitality, the altogether which go to make up that indefinable "Gemüthlichkeit" so frequently employed by those writing of this unique place. It may be justly said of Munich that here life is worth living.

For the past week many concert halls, the theaters and the opera house have been closed, because of the death of the Prince Regent of Bavaria. Certain ones opened Monday night. After the funeral services Thursday, at which the Kaiser, representatives from Austria, the King of Saxony (husband of the somewhat notorious Louise), the Infanta of Spain and other notables will be present, everything will be off in full swing. Then for the Christmas festivities and the January-February carnival. But I am far afield.

From all this sublimity it is a rather long step to garbage disposal, but we are all mortal and be we princes, potentates or plain people, shall all find our way eventually back to mother earth and be redistributed to the elements as are the contents of the garbage can.

Garbage disposal here does not offer as difficult a problem as at home. There is so much thrift, such economical housekeeping, little or no waste. If, perchance, there is anything destined for the garbage receptacle, the poorer people who have domestic animals or swine remove it and it is speedily transformed into good dog, cat or hog. A friend told me to-day that a saving housewife burned the thin potato peelings. As to other waste from vegetables, I dare say there is not a great deal from the average dwelling.

As to waste other than garbage, the disposal is ideal. It is placed in large cans—ashes, refuse, rags, old junk, glass, and indeed in small households refuse from the kitchen—and carted away daily or three times a week, to an establishment which I hope to visit, in the environs of Munich. There it is sorted. Rags are made over into paper; iron and metal reduced and remanufactured; glass melted and transformed into something useful. All is made of use. Bones are valuable, as everyone knows. It is said that from potato parings a drink for hogs is brewed. America has leagues and leagues to travel in the direction of small economies.

In the Deutsches Museum to-day I looked over charts and models showing garbage and sewage disposal of different cities. As to the former, that of Hamburg is, I should judge, nearest like that contemplated in Detroit and in use in some of the larger American cities. It would be well for the commission to obtain some data from Hamburg. Inasmuch as I shall not visit that city, it will be impracticable to give the result of personal observation.

As to sewage, that of Munich is carried direct into the Isar, a rapidly flowing river. Cross-sections of sewers, as shown in the museum, indicate that they are constructed of an excellent quality of pressed brick. They are of ovoid form, almost pear-shaped and the workmanship as displayed in the models is exquisite. You would be delighted with a cross-section of a street in Munich showing pavements, lamp-posts, hydrants, water mains, gas mains, conduits for telephone and electric lighting cables. Everything is so well laid out and so systematically done. Nothing seems to require changing or replacing. There is not an imperfect piece of paving in Munich so far as I have been able to discover. It is never permitted that a little hole shall grow larger through inattention. There are no breaks or bad joints into which water may settle and which constantly increase in size through the contact of vehicle wheels.

And as to the hygiene of the nervous system, it may be mentioned in passing that there is not a noisy street corner in the city. The rails are ground with an implement moved back and forth until they are as smooth as a well-made brass fitting. I haven't heard one single shriek. There is the (not disagreeable) rumbling sound, but no unearthly, Heaven-piercing shrieks like those of a lost soul, which may be heard any minute on the street corners of Detroit, shall I say? Or ————?

A sudden summons necessitated early departure from Munich and prevented acceptance of a gracious invitation obtained for me through the courtesy of Herr Reichsrat Panzer, chief of a department of sanitation, to visit the incinerating plant at Puchheim. Recent plans for canalization in Munich will, in three years, completely

change the sewage disposal of that city. It is the intention, ultimately, to meet the problem after the Frankfurt plan hereafter described. Thanks to introduction from the American consul at Frankfurt and the courtesy of the director of the refuse-burning and sewage-clarification plant (Muellverbrennungs und Abwasserklaer-Anlage), I was accorded the opportunity to inspect this establishment, one of the finest, if not the very best, in Germany. Rarely have I spent a more interesting and instructive two hours.

The Frankfurt sewage clarification plant has been in use since 1887. It was remodeled and rebuilt in 1902-04. It provides for all Frankfurt, but the capacity is no longer adequate and an establishment on similar lines will soon be built in the eastern end of the city. All the sewage from Frankfurt is at present here received. Mechanically and automatically, rakes operate against the waterflow and lift the solid matter, which is scraped from the rakes and carried by a continuous belt to a centrifuge. From one chamber to another, the water flows. In one, an electrically-driven dredge is operated, which separates sand and heavy particles. Eventually, the partially clarified water reaches the clearing chambers proper. Of these there are fourteen, each 41 meters in length, 5.81 meters in width and 2.5 meters in depth (one meter equals 39 inches). There are regularly in use perhaps eight of these basins, others not in commission being subjected to a cleansing process. Water passes through these chambers in a continuous stream with a maximum speed of eight millimeters, approximately one-third of an inch, per second. The cleared water flows to the end of the basins over weirs and thence into a canal leading to the Main River. The major part of heavier matter not removed by the rakes and dredges is concentrated in the bottom of the basins. A small amount of superimposed water is sucked up through a float mechanism, the arrangement of which I do not perfectly understand. The lower sediment is removed by a vacuum pump. To receive the suction pipes of the latter, there are, in every basin, depressions into which, from all sides, the heavy contents fall. It is mentioned that this falling would be facilitated through lining the walls and bottom with glazed stone. The entire process of water clearing is mechanical, so that, with the exception of those who have to do with managing the apparatus, no laborers are needed.

There is, yearly, collected from the sewage in round numbers, 100,000 cubic meters of solid material. In a hundred parts of the organic suspended matter 22 parts are taken up through the sand catcher and the rakes, 56 in the basin, so that there remain in the overflow but 22 of the finest and smallest quality. Of this, 14 per cent. is not separable by mechanical means. The total reclaiming, therefore, is 78-86, or 91 per cent. The original plant cost 85,900 marks; its enlargement and rebuilding 980,000 marks. Translated into dollars, this is, altogether, in the neighborhood of $266,475. The yearly cost of operating is perhaps 150,000 marks, $37,000; one-half pfennig per cubic meter of sewage, or 40 pfennigs per head of population (forty pfennigs equal about 10 cents).

Previous to 1909 the refuse obtained from the sewage was returned to the land. Since this time, a much better method has been in use. It is dehydrated, dried and finally, in connection with refuse from houses, streets and stables, incinerated. The preliminary treatment of the recovered heavy matter, containing about 5 to 10 per cent. of dry substances, is pumped into holders and falls from these into centrifuges revolving at the rate of thirteen times a second. The centrifuged water runs through a fine sieve back into the clearing basin. The centrifuges periodically and automatically open and their contents, now dried to 40 per cent. of solid matter, fall out on a transporting band by which they are carried to a drying drum. Through this, a portion of the smoke and gases from the ovens at the refuse burning plant is conducted and further drying of the mass to 70 per cent. takes place. In this form the material, which has a considerable fat content, is destined to the fire. Out of the drying drum the material falls to the foot of an elevator which is connected, by a bridge, with the upper floor of the neighboring Muellverbrennungs Anstalt.

Formerly house refuse was conveyed to a dumping ground outside of the city, but this expensive, unsightly, wasteful and objectionable method so common in American cities, was eventually abandoned and that of the incineration adopted. Refuse, as garbage, street sweepings, manure, rags, paper, bottles, bones, iron and tinware reach the refuse burning plant. After being asepticized by heat, it is sifted and the more valuable portions carried on a movable stage. Along this carrier, at intervals, stand workmen or workwomen who take out, as the carrier passes, those particular articles in which they are interested — one rags and paper, another bones, another pieces of iron, another glassware, and so on. These accumulations are sold to contractors who dispose of them to factories where they are converted into articles utilitarian or artistic.

As heretofore mentioned, two institutions were projected, the one for the west half, the other for the east half of the city. That for the western half of the city (one here described) is built in the neighborhood of the clarification works in order that refuse and the solid ingredients of sewage may be burned together. There are no grates, the bottom of the boilers consisting of hollow perforated iron plates which are cooled from the air entering the combustion chambers. Air flows in concentrated streams toward the oven. In these ovens, the refuse of Frankfurt, including that from the sewage clearing basins, is burned, *without the addition of coal and with so high a temperature that there is not only complete combustion, but also development of heat for other purposes.*

Refuse is collected by the city in wagons carrying chests of peculiar construction. They are tightly closed and have on the sides little openings with trap doors through which the contents of the containers are emptied without the development of dust. By a windlass, the wagon chest may be placed in an oblique position, shoved to the side, or lifted. The wagons containing refuse may be driven direct to the incinerating plant or the chests conveyed thither in barges on the Main River. The refuse containers are lifted to the second story of the establishment and placed in an oblique position. When emptied, the container is automatically returned. After drying, ascepticizing, sorting, the debris reaches the oven.

Every half hour the slag, the refuse from burning, is removed. Finer ashes are sucked out from the chamber where they are deposited, drawn up under the steam boiler and eventually through a smoke canal into a 50 meters high chimney. The steam serves for dynamo driving. The establishment contains six batteries of ovens, six boilers with 125 square meters of heating surface and two turbo-dynamos of 260 kilowatts each; also a storage battery. Each of the oven batteries has capacity to burn in twenty-four hours from 30 to 35 tons of refuse. The temperature varies from 800 to 1,000 Celsius (F. 1472-1832). One ton of refuse creates from 800 to 1,000 kilograms of steam and develops 6,500 kilowatt hours, of which 57 kilowatt hours remain over and above the requirements of the establishment itself.

The heat value of the refuse is perhaps an eighth of that of coal. The electrical output is part direct, in part alternating. The direct current serves the Anstalt, the sewage clearing building and the centrifuge houses. It is also carried to the waterworks at Goldstein, two kilometers distant, and there used for driving pumps. There are yearly perhaps three million kilowatt hours developed, of which the Anstalt uses half a million, the sewage clarifying plant and the centrifuge houses (all on the same ground plat) one million, and the distant waterworks one million. The balance is conducted to the Frankfurt City electric light works. Slag drawn from the oven is used for filling purposes where concrete might be employed, and for street building. It is contemplated to build an establishment for making slag stone. I was shown a sample of this possible product. The building of the refuse burning plant has, up to this time, cost in the neighborhood of one and one quarter million marks, or $350,000.

I was favored with a copy of a guide to some of the public works of Frankfurt-on-the-Main, published by the city engineer's department. This came to me through the courtesy of the American consul in Frankfurt. That portion of it having to do with the cleansing of the city and its cost, accompanies this report.

Accompanying the report is a booklet in German, describing the refuse plant and sewage clarification plant, statistics as to the cost of collecting garbage in Munich, and also a photograph of a cross-section of a Munich street to which reference was made in a previous letter. This was procured for me through the kindness of Herr Oberingenieur Hirschmann of Munich.

Hoch the economies and thrift of Deutschland!

REPORT OF A CASE OF TRACHEOBRONCHOSCOPY FOR THE REMOVAL OF FOREIGN BODY

JOHN R. ROGERS, B.S., M.D.
GRAND RAPIDS, MICH.

Hazel H., aged 15, of Sunfield, Mich., on April 1, was holding a 2-inch belt pin in her mouth, when she was moved to laughter by a remark of one of her companions. Throwing back her head, and probably taking a deep inspiration, the pin disappeared from view somewhere into her bronchial or esophageal passages. After the first fright, induced by this occurrence and a mild paroxysm of coughing, she suffered no special discomfort. There was no dyspnea and there was no great inconvenience in swallowing except as might be accounted for by nervousness.

The case was first seen by Dr. Wm. Fuller, about April 4. At this time, owing to the absence of symptoms, it was thought that the pin had passed into the stomach and a radiograph was taken by Dr. J. D. Hastie, with a view of

discovering it in that location. In this picture the pin shows in the upper end of the plate (Fig. 1), with the point in the second interspace of the right vertebral line, the head in the fourth interspace to the left of the vertebral line.

A second plate, taken April 6, shows the point of the pin in the third interspace, the head down one-half inch to the left of the spine, opposite the sixth rib (Plate 1).

I first saw the case on the morning of April 7. At this time the girl was suffering no discomfort and physical signs were practically absent, beyond a possible roughness of breathing on the left side, noticeable only at the back, below the inferior angle of the scapula. At this time there was no difficulty in swallowing.

With practically an equal absence of signs and symptoms from either the respiratory or alimentary tract, there still remained a doubt as to the exact location of the foreign body, though perhaps the most likely position would be in the left bronchus with the point projecting into the trachea.

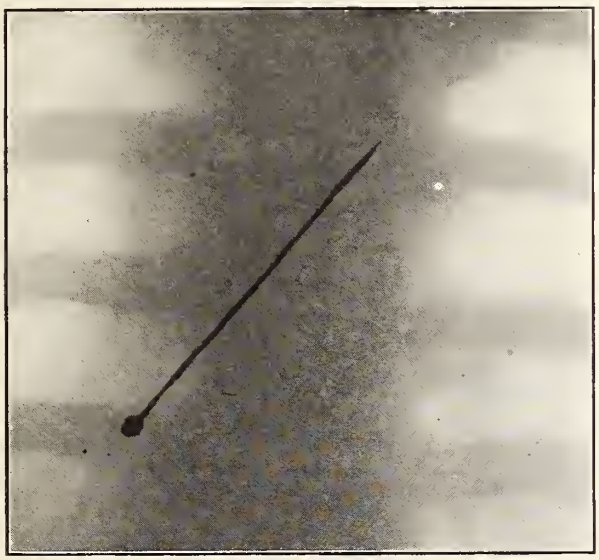

Plate 1.—Radiograph of the chest revealing the pin

Sunday, April 7, at 2 p. m., a tracheoscopy was performed, using the Chevalier Jackson bronchoscope, and though the tube was passed into both bronchi, the pin was not seen. It was then decided to explore the esophagus: the large esophagoscope was passed clear into the stomach, with a failure to locate the pin. The patient's condition at this time not being satisfactory, it was decided to desist in our efforts until a second radiograph could be taken.

Tuesday, April 10, this was done and the pin was located as in Plate 2. The point in the middle line opposite the fifth dorsal vertebra; the head in the sixth interspace, 1¼ inch to the left of the vertebral column.

This proved beyond a doubt that the foreign body was located in the bronchial tree; the head of the pin was probably in the ampulla of the left bronchus.

Plate 2.—Radiograph showing the change in location of the pin.

Saturday, April 13, the tracheoscope was again introduced. I was able to see the point of the pin soon after entering the left bronchus, but unfortunately the coughing reflex at this stage became so violent that I was unable to make an effort to remove it. A more violent paroxysm of coughing brought about one-half of the pin into view, and it then receded from sight. It then required considerable exploration before the new location of the pin could be found. By this time there was considerable edema of the bronchial mucous membrane, rendering exploration more difficult. When finally located, the handle of the 45 cm. tracheoscope was on the patient's cheek indicating the depth to which it had penetrated.

Plate 3.—The pin removed

The point of the pin having entered the tube, I introduced the forceps and withdrew the pin into the tube. The head of the pin was of sufficient size to completely occlude the distal end of the tube so that it became necessary to withdraw

the bronchoscope, the forceps and the pin at the same time.

The patient showed practically no ill effects from her unusual experience beyond a slight hoarseness for twenty-four hours following the bronchoscopy and was able to leave the hospital on April 16, two days after the operation.

I am indebted to Drs. William and Rowe Fuller, J. D. Hastie and J. M. DeKraker for their valuable aid in the management of the case and efficient assistance at the time of operation.

525 Metz Building.

Special Article

HERETOFORE UNPUBLISHED RECORDS OF THE MEDICAL SOCIETY OF THE TERRITORY OF MICHIGAN

EDITED BY
ALPHEUS F. JENNINGS, A.B., M.D.
DETROIT

(Continued from page 164, March, 1913)

CHAPTER VII—THE MEETINGS OF 1825

DETROIT, Jan. 11, 1825.

At an annual meeting of the Medical Society of Michigan, held this day agreeably to public notice, at the house of Benj. Woodworth, there were present:

Dr. William Brown, president.

Dr. Abraham Edwards, vice-president.

Dr. Stephen C. Henry, treasurer.

Dr. John L. Whiting, secretary.

Drs. Randall S. Rice, Marshall Chapin, Zina Pitcher, members.

The president called the Society to order. The roll was called, when it was found that Drs. Thompson, Hurd, Conant, Nichols and Hemenger were absent. Dr. Hurd entered.

The minutes of the meetings in June last were read, and it was resolved that the whole of the proceedings be spread upon the records of the Society, and the records be turned over to the president for the inspection and use of Dr. Hurd.

Dr. Cyrus Chipman and Dr. Daniel Goodwin presented their diplomas, the former from the Medical Society of the State of Vermont, and the latter from that of Connecticut, which were deemed satisfactory by the Society. Dr. Ezra L. Parke presented a diploma from the College of Physicians and Surgeons of the Western District of New York, which was read. He was then proposed by Dr. Whiting; ballotted for and unanimously admitted a member of this Society, on compliance with the requisitions of the By-Laws.

The Society then proceeded to the election of officers for the ensuing year, and upon counting the ballots the following persons were duly declared elected, to-wit:

Dr. William Brown, president.

Dr. Abraham Edwards, vice-president.

Dr. John L. Whiting, secretary.

Dr. S. C. Henry, treasurer.

Drs. William Thompson, S. C. Henry, Marshall Chapin, censors.

Dr. Whiting presented an account in favor of Benjamin Woodworth, amounting to four dollars and fifty cents, for refreshments, etc., furnished the Society at meeting in June last, and which Whiting has paid.

Resolved, That the amount be allowed and credited in Whiting's account.

Resolved, That the treasurer be authorized to purchase a book in which to keep his accounts. On motion,

Resolved, That a committee be appointed to examine and report whether any amendments of the statute of the territory regulating the practice of medicine and surgery are necessary; and if so, that they be instructed to draft a memorial in behalf of the Society to be presented to the Legislative Council at its next session, praying such a modification of the law as they shall deem expedient; and that the said committee be instructed to revise the existing By-Laws of the Society and make report of their doings at the next meeting. Drs. Henry, Pitcher and Whiting were appointed said committee. Dr. Rice rendered an excuse for non-attendance at the meetings of the Society for the last four years, which was accepted by the members.

Resolved, That when the Society adjourns it will adjourn to meet again on the first Monday in February next, at 6 o'clock p. m., at this place.

And the Society adjourned.

Attest: JOHN L. WHITING, Secretary.

DETROIT, Feb. 7, 1825.

At an adjourned meeting of the Medical Society of the Territory of Michigan, held this evening at the house of Benjamin Woodworth, there were present:

Dr. William Brown, president.

Dr. Stephen C. Henry, treasurer.

Dr. John L. Whiting, secretary.

Drs. Ebenezer Hurd, Zina Pitcher, Marshall Chapin, members.

The president took the chair, and called the Society to order. The roll was called when the following members were discovered to be absent, viz: Drs. Thompson, Rice, Conant, Nichols, Hemenger, Edwards and Parker.

The minutes of the meeting of January 11 were read and confirmed. Dr. Geo. W. Palms presented his diploma and certificate from the "College of Physicians and Surgeons of the Western District of New York," which were deemed satisfactory. He was then proposed by Dr. Chapin; ballotted for and admitted a member of this Society on his compliance with the requisition of the by-laws.

The committee appointed, at the annual meeting of the Society in January last, "to examine and report whether any amendments of the statute of the territory regulating the practice of medicine and surgery are necessary, etc.," made their report, which, after having been discussed and amended, was adopted (see report on file), with such verbal alterations in the articles proposed as may be necessary to adopt them to the circumstances of Michigan. On motion of Dr. Z. Pitcher it was

Resolved, That the Society's attorney be instructed to draft a memorial in behalf of the Society, praying of the Legislative Council of the territory, such amendments of the Statute Regulating the Practice of Physic and Surgery as the Society shall direct. Also, an amendment to the Statute regulating the issuing and

returning of writs of "Quo Warrants" and of "Mandamus" as shall enable the territorial Society to prevent the formation of illegally constituted medical societies; and that the committee hitherto appointed for that purpose, be instructed to present the same to the legislative authority of the territory at their adjourned session in March next.

Resolved, That a committee of three be appointed to select a system of medical ethics, from the one adopted by the State Medical Society of New York, or from the system of Percival, or any others, and report to the society at the next meeting. Drs. Henry, Pitcher and Whiting were appointed on the committee.

Dr. Cyrus Chipman of the County of Oakland was proposed by Dr. Whiting as an honorary member of this Society, and on being ballotted for, was unanimously elected. Dr. William Beaumont, of the United States Army, was proposed by Dr. Pitcher, and unanimously elected by ballot.

Resolved, That the secretary be instructed to inform the above named gentlemen of their election as honorary members of this Society.

Dr. William Kittridge, a licentiate of the "Massachusetts Medical Society," presented his diploma, which was approved by the Society. He afterwards made application to be admitted to membership, and on being ballotted for was admitted on compliance with the requisitions of the by-laws.

Resolved, That the secretary be authorized to procure the publication of the names of the officers of the Society, together with those of the honorary members, in the *Detroit Gazette*.

And the Society adjourned.

Attest: John L. Whiting, Secretary.

Detroit, June 1, 1825.

Dr. Ezra S. Parke has this day given notice that Lorenzo D. Webster has commenced reading physic and surgery with him, the said Parke; which notice is on file at my office.

John L. Whiting, Secretary, M. S. M.

Detroit, June 14, 1825.

At a semi-annual meeting of the Medical Society of Michigan, held this day at the house of Benjamin Woodworth, there were present:

Dr. William Brown, president.

Dr. John L. Whiting, secretary.

Dr. Stephen C. Henry, treasurer.

Drs. Ebenezer Hurd, Marshall Chapin, members.

The president took the chair and called the Society to order. The roll was called when it was found that the following members were absent. To-wit: Drs. Rice, Thompson, Conant, Nichols, Hemenger, Edwards, Pitcher, Parke and Kittridge.

The minutes of the meeting in January and the adjourned meeting in February last, were read and approved. A letter from Dr. E. S. Parke, giving notice that Mr. L. B. Webster had, on the first instant, commeneed reading medicine and surgery with him, was read by the Secretary as well as the filing of said notice.

The committee appointed at the meeting in February last, to select a system of "Medical Ethics," made their report, which was read and on motion was ordered to lie over for the consideration of the Society, till their annual meeting in January next. A letter from Dr. William Beaumont of the U. S. Army, acknowledging with sentiments of gratification the information of his election as an honorary member of this Society, was read and directed to be filed with the secretary.

And the Society adjourned.

Attest: John L. Whiting, Secretary.

CHAPTER VIII—THE MEETINGS OF 1826

Detroit, Jan. 10, 1826.

At an annual meeting of the Medical Society of Michigan, held this day at the house of Benj. Woodworth, there were present:

Dr. A. Edwards, vice-president, presiding.

Dr. J. L. Whiting, secretary.

Dr. S. C. Henry, treasurer.

Drs. M. Chapin and Wm. Kittridge, members.

The presiding officer called the Society to order.

The roll was called, when it was found that the following members were absent, to-wit: Drs. Brown, Hurd, Rice, Thompson, Conant, Nichols, Hemenger, Pitcher and Parke.

The minutes of the last meeting were read and approved. Dr. David E. Lord, a licentiate from the County of Onondaga, New York, was proposed as a member of this Society, and on being ballotted for was unanimously admitted, on compliance with the requisition of the by-laws.

Dr. Justin Rice was also proposed, ballotted for and admitted unanimously. Dr. Ezekiel Webb was also unanimously admitted as above. Dr. Henry Bradley was also admitted after being ballotted for. Dr. Ephraim Adams was also proposed and unanimously admitted.

The Society then proceeded to the election of officers for the ensuing year; when on counting the ballots it appeared that the following gentlemen were elected to the offices set opposite to their names respectively, viz.:

Dr. William Thompson, president.

Dr. Abraham Edwards, vice-president.

Dr. John L. Whiting, secretary.

Dr. Stephen C. Henry, treasurer.

Drs. S. C. Henry, M. Chapin and J. L. Whiting, censors.

Drs. Whiting and Kittridge each offered excuses for their non-attendance at previous meetings of the Society, which were accepted, and the fines imposed were remitted.

Resolved, That Dr. I. Rice, Dr. Chapin and Dr. Lord be a committee to investigate the subject of arrearages due the Society, and report at the next meeting.

The system of "Medical Ethics," reported at the meeting in June last, and then laid over for further consideration, was again taken up, and after discussion, unanimously adopted.

Resolved, That the secretary be authorized to contract for the printing of fifty copies of the system of "Medical Ethics" adopted as above, provided the expense shall not exceed the sum of fifteen dollars.

A paper presented to the Society, purporting to be a copy of a diploma granted by the Medical Society of Vermont, to John Willson, was read, and, on motion, the consideration of it was indefinitely postponed.

Resolved, That a committee of three be appointed, whose duty it shall be to report any, and if any, what alterations are necessary, in the statutes of the territory, regulating the practice of physic and surgery; and that they make report at the next meeting of the

Society in June next; and Drs. Chapin, Justin, Rice and Webb were appointed said committee.

And the Society adjourned.

Attest: JOHN L. WHITING, Secretary.

The following resolution passed at the meeting of the Society on Jan. 10, 1826, was omitted through mistake in transcribing the minutes of that meeting.

J. L. WHITING, Secretary.

May 2, 1826. Joseph V. D. Sulphur, M.D., of Port Lawrence, this day presented his diploma from the Medical College of Vermont, together with a certificate of membership from the College of Physicians and Surgeons of the Western District of New York.

J. L. WHITING, Secretary.

Resolved, That the 17th article of the By-Laws of this Society be so altered as to make it compulsory on each member, to communicate what have been the prevailing diseases in the circuit of his practice, and the most successful mode of treating them. And for a failure to comply with this requisition, each delinquent shall pay to the treasurer the sum of five dollars.

DETROIT, June 13, 1826.

At a semi-annual meeting of the Medical Society of Michigan, held this day at the house of B. Woodworth, there were present:

Dr. S. C. Henry, treasurer.
Dr. J. L. Whiting, secretary.
Dr. M. Chapin.
Dr. E. Hurd.
Dr. W. Kittridge.
Dr. I. Rice.

The president and vice-president being both absent, Dr. S. C. Henry was appointed president *pro tempore*, and called the Society to order. The roll was called, when it was found that the following members were absent, to-wit: Drs. Brown, R. S. Rice, W. Thompson, Conant, Nichols, Hemenger, Edwards, Pitcher, Parke, Lord, Webb, Bradley and Adams. The minutes of the meeting of the Society in January last were read and confirmed. The secretary presented an account from Chipman and Seymour, amounting to seven dollars, for printing fifty copies of "System of Medical Ethics," which was allowed and ordered to be paid by the treasurer.

Dr. Thaddius Thompson, a licentiate from the Medical Society of the County of Broome, N. Y., presented his diploma, which was considered satisfactory. He was then proposed, ballotted for and unanimously admitted a member of this Society. Dr. Lyman T. Jenney presented a diploma from the University of Vermont, which was deemed satisfactory. He was then proposed, ballotted for and unanimously admitted a member of the Society. Dr. Thomas B. Clarke presented a certificate of membership from the Medical Society of the City of New York, together with a certificate from the Professors in the College of Physicians and Surgeons in the City of New York. He was then proposed and unanimously admitted a member of this Society.

Sundry testimonials touching the qualifications and moral character of Joseph V. D. Sulphus, M.D., were presented and found satisfactory by the Society. He was then proposed, ballotted for, and unanimously admitted. A diploma from the Medical Society of the County of Greene, New York, to Dr. W. H. Provost, was presented, read and filed with the secretary. Dr. Rufus Pomeroy presented a diploma from the president of the Medical Society of the County of Herkimer, N. Y., which was considered sufficient. He was therefore ballotted for, and admitted.

The committee appointed at the last meeting of the Society to report whether any, and if any, what alterations are necessary in the statutes of the territory regulating the practice of Medicine and Surgery, submitted the result of their deliberations, which was read by the secretary and adopted. (See report on file.)

Resolved, That a committee of three members be appointed whose duty it shall be to copy the report this day submitted, and the advice and assistance of the Society's attorney for this purpose is necessary; and when so copied in proper form, that they present the same to the Chairman of the Judiciary Committee at the next meeting of the Legislative Council of the territory, in order that it may be passed into a law. And Drs. Clarke, Rice and Hurd were appointed said committee.

The committee appointed at the last meeting to investigate the subject of arrearages due the Society made the following report, which was adopted: "The committee appointed to investigate the subject of arrearages due the Society and report thereon, beg leave to report, that they deem it expedient to remit all fines and impositions due the Society from its members, except for admission fees, which are in all cases to be paid."

JUSTIN RICE,
M. CHAPIN,
Committee.

And the Society adjourned.

Attest: JOHN L. WHITING, Secretary.

June 30, 1826. John Hendrie, M.D., this day presented diploma from the president and professors of the University of Pennsylvania, and other documents, to the secretary of the Medical Society of Michigan.

August 5, 1826. Sterling W. Allen this day presented a copy of a diploma from the Medical Society of the County of Herkimer, New York, which was filed in my office.

J. L. WHITING, Secretary.

DETROIT, Nov. 17, 1826.

This day Hubbel Loomis presented a copy of a diploma from the Medical Socieety of the County of Herkimer, New York, which was filed in my office.

J. L. WHITING, Secretary.

CHAPTER IX—THE MEETINGS OF 1827

DETROIT, Jan. 9, 1827.

At an annual meeting of the Medical Society of Michigan held this day at the house of Benj. Woodworth, were present:

Dr. William Thompson, president.
Dr. S. C. Henry, treasurer.
Dr. J. L. Whiting, secretary.
Dr. R. S. Rice.
Dr. M. Chapin.
Dr. J. Rice.
Dr. E. S. Parke.
Dr. E. Webb.
Dr. T. Thompson.
Dr. L. T. Jenny.

The president declared a quorum present, and called the Society to order. The roll was called, when it was found that the following members were absent, to-wit: Drs. Brown, Hurd, Conant, Nichols, Hemenger, Edwards, Pitcher, Kittridge, Lord, Bradley, Adams and L. B. Parke.

Dr. Orville Morrison presented a paper purporting to be a diploma from the Medical Society of Bennington County, Vermont, and also a certificate of membership from the Medical Society of Oswego Co., N. Y. He was then proposed, ballotted for, and was not admitted. Ayes, 3; Noes, 6; Blank 1. On motion

Resolved, That the vote upon the admission of Dr. Morrison be reconsidered.

Dr. Hubbel Loomis presented a diploma from the Medical Society of the County of Herkimer, N. Y. He was then proposed, baliotted for and unanimously admitted a member, and paid five dollars to the treasurer.

John Hendrie, M.D., presented a diploma from the University of Pennsylvania. He was then proposed, ballotted for and unanimously admitted a member of the Society.

Dr. J. Rice presented a diploma granted by the Medical Society of the County of Delaware, N. Y., to Dr. Robert Clark, which was read. Dr. Clark was then proposed, ballotted for and admitted on compliance of the by-laws.

The Society then proceeded to the election of officers for the ensuing year, when on counting the ballots, it appeared that the following gentlemen were elected to the several offices set opposite their respective names, to-wit:

Dr. Stephen C. Henry, president.

Dr. Abraham Edwards, vice-president.

Dr. John L. Whiting, secretary.

Dr. Marshal Chapin, treasurer.

Drs. M. Chapin, John Hendrie, and J. L. Whiting, censors.

The late treasurer made his report, which was accepted by the Society.

Resolved, That the by-laws be so amended as that immediately after the examination of students "the president shall deliver his address."

Sheldon & Ried's account for advertising notice of meetings, etc., from May, 1820, to December, 1824, amounting to $13.60, was read, allowed and ordered to be paid by the treasurer.

Dr. J. L. Whiting being called on to furnish a description of some case in his practice during the past year, reported a case of Puerpural Fever, cured by the administration of olium turbinth and ol. ricini.

Dr. Henry reported the general treatment prescribed by him in the past year, in febrile diseases.

On motion of Dr. Hendrie,

Resolved, That, that part of the 17th Article of the By-Laws, which requires the members, annually to communicate the prevailing diseases during the preceding year, etc., be expurged.

The following resolutions were then adopted, viz:

Resolved, That the members of this Society be requested to communicate in writing to the Society at each future meeting, such diseases as have prevailed within the sphere of their practice, and what treatment has proved most successful.

Resolved, That the fact of said communication having been made, be entered on the records of the Society, and the papers deposited in its Archives, as the property of said Society.

Resolved, That Dr. R. S. Rice be added to the committee heretofore appointed to procure amendments to the laws regulating the practice of Physic and Surgery.

And the Society adjourned.

Attest: John L. Whiting, Secretary.

Detroit, June 12, 1827.

At a semi-annual meeting of the Medical Society of Michigan, held this day at Schwartz Mansion House, there were present:

Dr. S. C. Henry, president.

Dr. J. L. Whiting, secretary.

Drs. R. S. Rice, M. Chapin, and T. B. Clarke, members.

The president declared a quorum present, and called the Society to order. The roll was called, when it was found that the following members were absent, viz: Drs. Brown, Hurd, W. Thompson, H. Conant, Nichols, Hemenger, Edwards, Pitcher, Parke, Kittridge, Lord, J. Rice, Webb, Bradley, Adams, Thad Thompson, Jenny, Loomis, Hendrie and R. Clarke.

The minutes of the last meeting were read and confirmed. Dr. T. B. Clark rendered an excuse for non-attendance at the last meeting which was accepted.

A letter, communicating a request from several members of the Society, residing in the County of Washtenaw for permission to form a County Society in that county, was read. Whereupon

Resolved, That Drs. Cyril Nichols, Rufus Pomeroy, William Kittridge and David E. Lord, the persons named in the above mentioned letter, be and they are hereby authorized to form a County Medical Society in the County of Washtenaw, and that the secretary give the petitioners notice of this resolution.

Dr. John Truax presented a diploma from the Medical Society of the State of New York, which was deemed satisfactory by the Society. He was then proposed, ballotted for, and unanimously admitted a member.

A diploma from the University of Vermont, granted to Warren Bell Sargent, M.D., was presented, examined by the Society and deemed satisfactory by the Society.

Dr. Truax signed the by-laws, and paid five dollars to the treasurer.

And the Society adjourned.

Attest: John L. Whiting, Secretary.

CHAPTER X—THE MEETINGS OF 1828

Detroit, Jan. 8, 1828.

At an annual meeting of the Medical Society of the Territory of Michigan held this day at Schwartz's Mansion House, were present:

Dr. S. C. Henry, president.

Dr. J. L. Whiting, secretary.

Dr. M. Chapin, treasurer.

Drs. R. S. Rice, T. B. Clark, L. T. Jenny and Jno. Truax, members.

The president declared a quorum present and called the Society to order. The minutes of the semi-annual meeting in June last were read and confirmed. Dr. Dennis Cooley presented a diploma from the Medical Society of the State of Massachusetts, which on examination by the Society, was deemed satisfactory. He was then proposed, ballotted for, and unanimously admitted.

Dr. Stirling W. Allen presented a diploma from the County of Madison in the State of New York. He was then proposed, ballotted for and unanimously admitted.

DR. BEAUMONT REPORTS A CASE

A letter dated August, 1827, from Dr. William Beaumont, of the U. S. Army, an honorary member of this Society, accompanied by a report of an interesting case of wounded stomach, which occurred in his practice together with some experiments on the digestive powers of the stomach was read, whereupon on motion of Dr. R. S. Rice,

Resolved, That the thanks of the Society be transmitted by the Secretary to Dr. Beaumont, for the able luminous report of a case of wounded stomach, and the experiment on digestion forwarded by him to this Society, and read at its annual meeting in January, 1828.

The president, Dr. S. C. Henry, read to the Society an essay on Digestion.

Dr. J. Rice entered. The Society then proceeded to the election of officers for the ensuing year, when on counting the ballot, it appeared that the following gentlemen were elected to the offices set opposite their respective names:

Dr. S. C. Henry, president.
Dr. J. L. Whiting, vice-president.
Dr. R. S. Rice, secretary.
Dr. M. Chapin, treasurer.
Drs. R. S. Rice, J. Hendrie and J. L. Whiting, censors.

Resolved, That the secretary procure for the use of the Society as soon as printed, fifty copies of the laws regulating the practice of Physic and Surgery in this territory, and when so procured that he deliver a copy to each member.

And the Society adjourned.

R. S. Rice, Secretary.

Mt. Clemens.

April 23, 1828: Dr. George Lee, Jr., deposited a copy of his diploma granted by the Medical Society in the County of Monroe in the State of New York, and on the second day of May, 1828, was found legally qualified by the censors to practice Physic and Surgery in this Territory, and accordingly a license was granted him signed by the President and Secretary under Seal of the Society.

R. S. Rice, Secretary.

Tecumseh.

June 5, 1828: Dr. Michael A. Patterson presented his diploma obtained from the Medical Society of the County of Niagara in the State of New York, which being examined by the Censors was deemed satisfactory, and upon the certificate of said Censors, a diploma was granted to the said M. A. Patterson under the Seal of the Society to qualify him to practice in this Territory according to Law.

Also a copy of said diploma was filed on the above date.

R. S. Rice, Secretary.

At the semi-annual meeting of the Medical Society of the Territory of Michigan, held at the Mansion House, in the city of Detroit, on Tuesday, the tenth day of June, A. D., 1828.

The President called the Society to order and declared a quorum present. The Roll was called and all the members found absent except the following, viz:

Dr. S. C. Henry, President.
Dr. R. S. Rice, Secretary.
Drs. M. Chapin, J. Hendrie, members.

The minutes of the last meeting were read, and on motion of Dr. Chapin the Society adjourned to Tuesday the twenty-fourth day of June, present at 10 o'clock a. m.

Adjourned Sine die.

R. S. Rice, Secretary.

June 30, 1828: Dr Bradley Bunnel presented his diploma obtained from the Medical Society of the County of Orleans in the State of New York which was examined by the Censors and deem d satisfactory.

Whereupon a diploma was granted to said Bunnel under Seal of the Society of this Territory and according to the Laws regulating the practice of Physic and Surgery in the same.

R. S. Rice, Secretary.

CHAPTER XI—THE MEETINGS OF 1829

At a meeting of the Medical Society of the Territory of Michigan held at the Mansion House in the City of Detroit on Tuesday the thirteenth day of January, 1829; present:

J. L. Whiting, Vice-President.
R. S. Rice, Secretary.
M. Chapin, Treasurer.
J. Rice, H. Loomis, members.

The Vice-President called the Society to order and declared a quorum present. The Roll was called and the following members were found to be absent, viz: S. Henry, Brown, Conant, Hurd, Thompson, Nichols, Hemenger, Edwards, Pitcher, Parke, Kittridge, Lord, Webb, Bradley, Adams, T. Thompson, Jenny, Clarke, Hendrie, Truax, Allen, Cooley.

The Society then proceeded to the election of officers for the ensuing year, and on counting the ballots the following gentlemen were elected to the offices set opposite their respective names:

Dr. S. C. Henry, President.
Dr. J. L. Whiting, Vice-President.
Dr. R. S. Rice, Secretary.
Dr. M. Chapin, Treasurer.
Drs. R. S. Rice, M. Chapin, J. Rice, Censors.

The Treasurer being called on to make his report of the state of funds, stated to the Society that no alteration had taken place subsequent to the last report and therefore had not prepared a statement.

The excuse was deemed satisfactory.

Dr. C. McCollum presented his license authorizing him to practice Physic and Surgery, granted by the Medical Society of the County of Herkimer in the State of New York, which was deemed satisfactory, and on motion of Dr. J. Rice he was ballotted for, and unanimously admitted a member.

On motion of Dr. J. Rice:

Resolved, That the Treasurer, be, and is hereby authorized and directed to collect all fees due the Society for admission previous to the next meeting of the same.

On motion of Dr. R. S. Rice:

Resolved, That a Committee of three members be appointed to revise the by-laws of the Society, and report at the semi-annual meeting in June next.

And Drs. M. Chapin, J. Rice and R. S. Rice were nominated by the President to compose said Committee.

On motion of Dr. J. Rice the Society adjourned.

Attest: R. S. Rice, Secretary.

March 3, 1829.

Dr. David Ward presented his diploma from the Medical Society of the County of Essex in the State of New York, which together with other vouchers were deemed satisfactory by the Censors. Whereon a license was granted to said Ward under Seal, signed by said Censors, the President and Secretary of the Society, and a copy of said diploma was filed pursuant to the Statute.

March 14, 1829: Dr. Perrin Barker presented satisfactory testimony to the Censors of his having studied Physics and Surgery for the time and in the manner prescribed by Law, and was therefore licensed to practice in this Territory.

Attest: R. S. Rice, Secretary.

April 22, 1829: Dr. Charles William Brandt presented satisfactory testimony to the Censors of his having studied Physic and Surgery for the time and in the manner prescribed by Law, and was therefore licensed to practice in this Territory.

Attest: R. S. Rice, Secretary.

May 21, 1829: Dr. Andrew Hays presented satisfactory testimony to the Censors of his having studied Physic and Surgery for the time and in the manner prescribed by law, and was therefore licensed to practice in this Territory.

Attest: R. S. Rice, Secretary.

At a meeting of the Medical Society of the Territory of Michigan held at the Mansion House in the City of Detroit on Tuesday the tenth day of June, A D., 1829.

Were present:

Dr. S. C. Henry, President.

Dr. R. S. Rice, Secretary.

Dr. M. Chapin, Treasurer.

Dr. J. Rice, Member.

The President called the Society to order and declared a quorum present, whereon the Roll was called and all the members found absent, except those above mentioned, the minutes of the last meeting were then read and on motion the Society adjourned.

Attest: R. S. Rice, Secretary.

Oct. 23, 1829: Dr. Isaac Wixon presented satisfactory testimony to the Censors that he had studied Physic and Surgery for the time and in the manner prescribed by Law, and that he was regularly licensed by the Medical Society of Bates County of New York, and was therefore licensed to practice in this Territory.

Attest: R. S. Rice, Secretary.

October: Dr. David L. Porter presented satisfactory testimony, to the censors, that he had studied Physic and Surgery for the time, and in the manner prescribed by law, and exhibited a diploma from the Medical College in Burlington, Vermont, as a graduate of the same, and therefore licensed to practice in this Territory.

Attest: R. S. Rice, Secretary.

(To be continued)

PUERPERAL ECLAMPSIA

Don't delay terminating the pregnancy after the onset of the first convulsion. The earlier the uterus is evacuated, the lower the maternal and infant mortality.

Don't treat the patient haphazardly, as the mortality and morbidity are exceedingly high under such conditions. Endeavor to choose the right method of operation in the first instance.

Don't give chloroform or nitrous oxid, as they both cause acidosis. Ether, while not free from objection, is the least harmful; but its administration should be restricted to the time of intervention.

Don't forcibly dilate an intact or rigid cervix. It is irrational and unjustifiable. Bear in mind the physiologic and anatomic changes necessary to soften and unfold the cervix, and dilate the external os. The divulsion of the cervix in a few minutes by instrumental or manual methods—what Nature takes, under normal conditions, hours to do to preserve the integrity of the soft parts—is unscientific, dangerous and brutal. It is in this class of cases that the cutting operations, when done primarily, give such excellent results. Vaginal hysterotomy is the operation of election up to the eighth month, and the abdominal cesarean section after that time; particularly when the child is of average size or has a weak fetal heart-beat, in cases of corpulency or when the cervix is high, in posterior positions.

If these "dont's" be universally observed we will see a great reduction in the mortality and morbidity of eclampsia.—Moran, *Surg. Gynec. and Obst.*

G. W. Crile of Cleveland, in Keen's *Surgery*, Vol VI, p. 158, which has just been issued, gives this technic for his anoci-association: "The patient is anesthetized as usual, but the entire line of incisions is carefully blocked with novocain, including the peritoneum. If then, at the end of the operation and before the peritoneum is closed, there is applied around the entire line of stitches a complete anesthetic block that will last a number of days, such as 50 per cent. alcohol or quinin and urea hydrochlorate, and if in stitching the peritoneum every stitch is placed within this blocked zone, then the afferent impulses caused by stitch irritation are blocked, and hence cannot excite this protective mechanism of intestinal inhibition.

"On trial of this method it was found that such blocking does minimize or even prevent postoperative gas pains in all sorts of abdominal operations. The principle here enunciated has been more or less tested in a series of over 2,000 by myself. In the last 1,000 the death-rate has fallen to 1.8 per cent."

Chetwood of the New York Polyclinic Hospital, in his new work on *Urology*, p. 781, says regarding the use of salvarsan in syphilis: "One dose of salvarsan has demonstrated indisputably its influence in overcoming and controlling the symptoms during the most active early stage, and of causing a cessation thereof for periods of varying duration. A single dose has demonstrated its ability to remove promptly the obstinate chronic lesions on the skin and mucous membranes, and to cause enlargements of the organs and the bones to disappear in a short period. . . . It may, therefore, be reasonably stated that one dose of salvarsan is the equivalent of several months of mercurial treatment."

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to Frederick C. Warnshuis, M.D., 91 Monroe Ave., Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

APRIL

Editorials

ANTITYPHOID INOCULATIONS

We have every reason to be proud of the reeord established by the Medieal Corps of the United States Army in the prevention of typhoid fever. Ours is the only army in the world in which the use of antityphoid vaeeine is made compulsory for every soldier under 45 years of age. The three inoculations used in our army insure a greater and more lasting immunity than do the two injections used in other eountries. Major F. F. Russell, in a lecture before the Harvey Society in New York, Feb. 8, 1913, says, "The immunity whieh three injections of the antityphoid vaeeine now in use confers is equal to and identieal with that conferred by an attack of the disease, and it ean be obtained without danger and praetically without the likelihood of distressing symptoms of reaction." The following statistics, given by Major Russell, show its success: In 1898, in ten thousand troops stationed at Jacksonville, there were over one thousand eases of typhoid, and 87 per eent. of the total deaths were due to typhoid. In 1911, in the army stationed in Texas—with antityphoid inoculation in general use—there were only two cases of typhoid fever and no mortality. In 1912, there were only fifteen cases of typhoid in the whole standing army of 58,000 men with only two deaths. Only one of these fifteen had reeeived the three proteetive inoeulations.

In the light of these results, antityphoid vaeeine should be more extensively used in eivil life to proteet physicians, nurses and others serving in hospitals where typhoid cases are admitted and to immunize the remaining members of a family in whieh typhoid fever has appeared. In view of the faet that in several epidemies the infection has been carried by milk it has been very aptly suggested that all those handling milk, supplied partieularly to large eenters, be required to reeeive protective inoculations.

The most eneouraging results yet obtained in the treatment of typhoid baeillus carriers have been through the use of vaeeines combined with x-ray exposures in gall-bladder cases and hexamethylenamin in urinary eases.

Experimentally, it has been shown that no produetion of opsonins and agglutinins oeeur for from five to eleven days after the first injeetion; from that time on to the twenty-fifth day there is a very rapid produetion of antibodies. In the treatment of typhoid, the immunity reaetion has already been started by the existing infeetion and the response is somewhat more prompt. Thus far vaeeines have been used in five hundred or more reported eases and it is the general opinion that when used early and given in suffieient doses the course of the disease is shortened; the symptoms are less severe; the deathrate is lowered, and there are fewer eomplications and relapses. T. D. G.

THE USE OF OIL OF ORANGE IN ANESTHESIA

When the ether, employed in anesthesia, is combined with the oil of orange the patient may be anesthetized with less discomfort, with no preliminary stage of excitement and with the consumption of about one-half the quantity of ether that is otherwise required; there is also a speedy recovery from the anesthetic state, without nausea or vomiting.

This was shown by Gwathmey[1] several years ago. In a reeent publication we note that Jarvis,[2] after certain experiments, coneludes: (1) That essential oil of orange enhibits nasal

1. Jour. Am. Med. Assn., Dec. 17, 1901.
2. Month. Cycl. and Med. Bull., January, 1913.

reflexes, elicited by ether alone; (2) the inhalation of the oil of orange previous to the inhalation of ether (for three minutes) suppresses the reflexes of dilatation of the lungs and stomach that is produced by ether vapor.

The technic of the administration is to allow the patient to inhale the oil of orange from the ordinary mask for a period averaging about three minutes before the commencement of the administration of the ether. When the ether vapor is commenced it is combined with the oil of orange vapor in the proportion of one ounce of the essential oil and one ounce of water contained in a separate bottle that is connected with the ether vaporizer.

If the above results are thus obtainable—and we have no reason to believe otherwise—it becomes essential that every person administering ether as an anesthetic should employ this adjuvant. Every method that has a worthy claim to being an agent that will enhance or reduce to a minimum the dangers that are connected with the production of the anesthetic state should be employed on every occasion where ether is exhibited as the drug of choice. Even though ether is conceded by the majority as being the safest anesthetic, it is our bounden duty to render it more safe if we can possibly do so.

We would recommend that Gwathmey's suggestion:[3] (1) The preliminary administration of morphin and atropin or some similar drug or combination; (2) commencing the anesthesia with two to four drops of the essence of orange (25 per cent., U. S. P.); (3) the drop method of anesthol until the patient reaches surgical anesthesia, and then a change to the drop method of ether; (4) replacing the drop method of ether by some form of "vapor anesthesia"; be used by those who are employing ether as their anesthetic agent of choice.

THE GLASNER BILL

Practicability and applicability are desired — yes, admired and encouraged—but idealism must not be lost sight of or ignored. The Glasner bill is an educative measure, conducive to public health betterment and race improvement, and is a movement in the direction that leads to the attainment of higher and greater perfection of our communal life.

The bill has passed the House and it is to be hoped that its reception by the Senate will result in its becoming a law. While we may already have too many laws that serve to no other purpose than to occupy a certain number of pages in our statute books, the Glasner bill—apparently considered by some to be a piece of ideal legislation and its enforcement a questionable problem—is a commendable law. If it accomplishes nothing more than to awaken the public interest in the problems of preventative medicine, a good work will have been instituted.

More and better results are, however, anticipated from this legislative measure, and as its intent and purpose become more apparent to the mothers and fathers of our commonwealth, the rigid enforcement of this law will be demanded and secured. These enlightened citizens will then also demand the enactment of certain amendments which will prevent the evasion of the law by those who are physically unsound or mentally deficient.

It required twenty-five years' time in which to educate the public as to the necessity of preventative measures in the treatment and eradication of tuberculosis. It is hoped that a similar length of time will not be required to make them realize the necessity of legislation as an agent for the betterment of the coming generations.

DR. WILFRID HAUGHEY

Dr. Wilfrid Haughey, retired as secretary-editor of the Michigan State Medical Society at the January meeting of the Council. It is but proper and befitting that a permanent record should be made of his services to the state organization and the society's appreciation be thus recorded.

Dr. Haughey was born in Kalamazoo County, this state, on Aug. 10, 1880. His preliminary education was secured in the schools of Battle Creek, where he graduated from the high school in 1900. In 1904 he received his A.B. degree from the Literary Department of the University of Michigan. In the fall of 1902, he entered the medical department of the same institution and continued as a student in this department until the end of his sophomore year. He then went to Detroit, where he completed his medical course in the Detroit College of Medicine, graduating with the class of 1906. His A.M. degree was conferred on him by the Detroit University.

He served as extern of Harper Hospital for one year. While a student in Detroit, he served under the following preceptors: Drs. Don M. Campbell, Angus McLean, J. V. White and A. P. Biddle. In the fall of 1908 Dr. Haughey pursued a post-graduate course in eye, ear, nose

3. Jour. Am. Med. Assn., Nov. 23, 1912.

and throat work in Chicago, since which time he has devoted himself to the practice of this specialty.

The doctor is at present a member of the adjunct staff of the Nichols Memorial Hospital in Battle Creek; a member of the American Medical Association, and the American Academy of Medicine. He has held at various times, offices in the Battle Creek Medical Club and the Association of State Secretaries and Editors. He is also a member of the American Academy of Oph-

DR. WILFRID HAUGHEY

thalmology and Oto-Laryngology; the Detroit Oto-Laryngological Society, and is First Lieutenant of M. R. C., U. S. A. During November of last year, Dr. Haughey was elected Supreme Editor of the Phi Beta Phi Fraternity Quarterly.

While serving as secretary of this society and editor of THE JOURNAL, Dr. Haughey devoted a large share of his time and efforts to the upbuilding of the organization in its various departments. To enumerate the details surrounding his tenure of office would require a prolonged narration. His record may be found in every issue of THE JOURNAL that was published under his direction and editorship.

In relinquishing the duties of the office of secretary-editor of this organization, Dr. Haughey is assured of the thanks and appreciation of our entire body of members. We will follow his future career with interest and extend to him, at this time, our kind wishes for future health, happiness and prosperity.

THE ANNUAL MEETING

The Committee on Arrangements for the Annual Meeting of the Society have engaged the new Masonic Temple as the place for the holding of all the meetings. The assembly room will be utilized for the general meetings; the Section on General Medicine will be assigned to the banquet hall; the Knights Templar room will be devoted to the sessions of the Section on Surgery; the Section on Gynecology will occupy the mezzanine, and the third floor will be devoted to the Section on Eye, Ear, Nose and Throat. Such an arrangement will enable the Society to hold all its meetings under one roof. The Committee on Arrangements is actively engaged in preparing for the meeting and early reports indicate that the Flint meeting will be one of the best of our Society. Even though the meeting is not held until September 4-5, it might be well for you to bear the date in your memory and thus enable you to keep from making any conflicting engagements or vacation plans.

Editorial Comments

"TRUTHS about Medicines" as published in this journal is not "filler" material. It is, as its title implies, the truth regarding the various preparations that reach every physician, either by mail or by the manufacturer's representative. It is given space in this publication in the hope that it will enable the general practitioner to know whether or not he is prescribing a remedy possessed of therapeutic value or merely a concoction that commands a fancy price.

MICHIGAN will elect two members of the Board of Regents of the University of Michigan at the spring election. Two members of the Michigan State Medical Society are nominated: Dr. Walter

H. Sawyer of Hillsdale on the republican ticket, and Dr. H. S. Chapman of Pontiac on the progressive ticket. These members are both exceptionally good men and both should be elected. Their election would secure for the medical profession the representation to which it is entitled on the Board of Regents of our university.

The Committee on Arrangements for the annual meeting in Flint have engaged the entire new Masonic Temple as the place for the holding of the meetings of the various sections, Council and House of Delegates. The facilities of this building are so ample and so well arranged that all the meetings may be held under one roof. The activity that is being exhibited by the Genesee County Society is indicative that the 1913 annual meeting will be of exceptional value and interest.

Dr. R. L. Dixon of the State Board of Health has compiled a set of figures which show that a much larger appropriation is made by Michigan cities for fire and police protection than for the protection and preservation of the health of the citizens. The report shows that in Lansing, $1.30 per capita, is used for fire protection; 70 cents per capita for police protection; less than 5 cents for health. It is stated that this ratio holds true for the various other cities of our state. Further comment is unnecessary.

Dues. The House of Delegates and the Council have enacted that every member whose dues remain unpaid on April 1 shall be placed on a suspended list; that a list of the members whose dues are permitted to lapse shall be published in the May issue of The Journal; and, that protection by the Medicolegal Committee be denied them in any action that may be brought against them for services rendered during the period of such suspension.

If you have not paid your 1913 dues, do so at once. Send your check to the county secretary to-day. By so doing you will not compel us to report your name as one who is in arrears.

The Chicago, Milwaukee and St. Paul Railroad has been designated as the official route for the members of our state society who will attend the annual meeting of the American Medical Association in Minneapolis, June 16-20. The management of this road will provide special Michigan sleepers that will be attached to the American Medical Association special train which leaves Chicago at 10 p. m. on the night of the sixteenth of June. Those desiring to take advantage of this arrangement will please make their reservations early, either with the secretary or with Mr. H. W. Steinhoff, district passenger agent, C. M. & St. P. R. R., Majestic Bldg., Detroit. Michigan should have a large representation at this annual meeting.

We consider Dr. C. B. Burr's article, in this number, on the "Methods of Sewage Disposal in Germany," to be a very timely one. The proper disposal of sewage is a very vital matter and is a problem that is confronting the authorities in many of our Michigan cities, towns and villages. The public is awakening to the fact that individual communities must dispose of their wastes in some other way than by throwing them in the water of streams, lakes and harbors, from where they are carried to their neighbors. The methods that are being employed by sanitarians in the disposing of sewage and wastes are fit subjects for discussion in the county society meetings. The profession is accustomed to being looked to for information and instruction in all health problems and this makes it essential that they should become conversant with modern methods and be in position to give intelligent advice whenever they are consulted on this subject.

The Odell bill, providing for the sterilization of the insane and those mentally deficient, passed the Senate of the Legislature with but one amendment. The amendment provides for judicial determination as in the case of commitment for insanity.

The State Nurses' Association is endeavoring to secure the passage of a bill that will provide for a state visiting examiner of hospitals, who shall make all the rounds of the hospitals and training schools. The object is to secure greater efficiency on the parts of hospitals and their schools for nurses. The operation of the nurses' registration law has piled up a surplus of $12,000 in the treasury, and the nurses are a unit in favor of using some portion of this fund to establish the profession of nursing on a higher plane.

In the May number The Journal will give a review of all the laws that are enacted by the Legislature in so far as they pertain to the medical profession.

In days past, while looking through the special list of physicians that may be found in the directory of a telephone exchange, we have found

listed among the names of reputable physicians and surgeons, advertising quacks, osteopaths, chiropractors and members of every other cult that has invaded the field of medicine. This is not as it should be. If the county society would undertake to appoint a member or a committee to interview the managers of these exchanges, I dare say that the removal of these undesirable names from among the lists of reputable medical men would be secured. The permitting of the continuance of the practice of listing the representatives of these different cults among and alongside of the name of a reputable practitioner is equivalent to recognizing them as having some claim to the right to be called doctors and practitioners of the healing art.

Look into your telephone directory and see how many of these men and women are listed alongside your name. Then bring the matter up before your county society and secure their removal from among the list of physicians and surgeons in your local directory.

WE do not anticipate any difficulty in filling the columns allotted to editorials, comments, society news, news and notes, and the other editorial departments of THE JOURNAL. However, the number and character of the original articles that appear will be determined by the members. Without being in possession of these original articles we cannot publish them. Without them THE JOURNAL will be deficient and below par in a department which should otherwise be strong and of distinct value. Remember that this is your journal and your collaboration in this feature of our publication will enable us to cause THE JOURNAL to assume a prominent position in the field of medical journals.

The Publication Committee would like to have THE JOURNAL contain at least eight or ten original articles in each number. This will be impossible if they are not the recipients of these papers from our membership. Your official publication should receive preference over all other journals when determining the medium of publication for your medical writings.

This is not a complaint; it is merely a reminder that you owe your first allegiance to your state society and THE JOURNAL.

IT will not be long before the great outside world will be in a beckoning mood. With the arrival of the warm spring days there will steal over you a feeling of tiredness and lassitude and you will realize that the winter's work has made more or less greater inroads on your strength than you were really aware. There is but one way by means of which you can reinvigorate your tired physical state and overworked mental powers—relinquish your duties; refer your patients to one of your confrères; take a vacation.

Visit some of the larger cities; attend their medical and surgical clinics; see a show at night, a vaudeville if you please, where you may indulge in a hearty laugh; and then go to bed assured that your slumber will not be disturbed by the tinkle of the telephone bell or the knock of the midnight messenger summoning you out on a long drive or confinement case. Do this for a week or two. You will become rested; you will have received new ideas and inspirations that will cause you to do better work; and you will have enjoyed a taste of some of the pleasures of life. Returning home you will be enabled to take up your practice with a little keener interest; earn just as much if not more money and better still —you will have secured a longer lease on life. Try it. A couple of weeks of absence from work in the spring and fall of the year is essential for every practitioner of medicine.

MUCH as we may dislike the high cost of living one thing must not be overlooked; the increased cost of living has nothing to do with the tariff but is due to the fact that wages and salaries have doubled within the past decade. When the pay-roll increases the price of commodities must increase. This brings us to the point we wish to make: have you increased the monetary value that you place on your professional services? If the increase has not been commensurate with the increased cost of the necessities and commodities of life, let alone the supplies and equipment required for your office and practice, you need look no further for the reason why, with an equal amount of work done, your bank balance does not show as large a surplus as it did in former years. You cannot afford to make the one dollar call of several years ago and pay for higher priced feed, horses, buggies, harnesses or gasoline, oil, tires and repairs and find your balance equal to what it was when the expense to which you are put in making the visit is greater. Much as you may dislike to, existing circumstances and conditions will compell you to increase the charge made for services rendered. It is well that we devote a little consideration to the material side of our work and possibly be thus enabled to pursue, unhampered with financial worries, our scientific study and research.

The first number of the *International Abstract of Surgery* appeared with the February issue of *Surgery, Gynecology and Obstetrics.* This is the first serious attempt to publish in English a complete, comprehensive and authoritative review and index of the surgical literature of the world. The editorial announcement of the object of this new publication states: Our object is to furnish in English a complete bibliography of the surgery of the world; to print an abstract of the most worthy literature in each department of surgery, abstracted by the men familiar with the literature and the men producing it in each country.

Agreements have been entered into with the editors and publishers of the three most important abstract journals of France and Germany, whereby there is an exchange of material. This means that American writers will have the abstracts of their writings published in these foreign publications.

This *"Abstract"* deserves and should receive the hearty support of the American profession in order that the editors and publishers may be enabled to continue the compilation, indexing and abstracting of the surgical literature of the world to-day and present this material—the value of which cannot be estimated—in the hands of every interested surgeon at the first of each month. We congratulate the editors on the contents of the first number and trust that the profession of Michigan will endorse this effort by given them their subscription support.

State News Notes

Dr. J. E. Thompson has removed from Elkton to Detroit.

Dr. Campbell, recently of Posen, has resumed practice in Metz.

Dr. Berggren of Pisgah has moved to Weston, Neb., and has entered general practice in that city.

Drs. Wm. McBurney and W. S. Stevens of Iron River have formed a partnership for the practice of their profession.

Dr. Frank Burr Marshall of Muskegon, who has been confined to his home for nine weeks with a broken hip, is now able to be around.

Dr. Sara T. Chase was elected secretary-treasurer of the Traverse City Anti-Tuberculosis Society at the annual meeting held February 25.

Dr. Guy L. Kiefer, health officer for Detroit, addressed the annual meeting of the Kalamazoo Anti-Tuberculosis Society on February 25.

Drs. S. C. Graves and Wm. H. Veenboer announce the removal of their offices from the Ashton Building to the Metz Building, Grand Rapids.

Drs. John R. Rogers and Charles E. Hooker announce the removal of their offices from the Gilbert Building to the Metz Building, Grand Rapids.

Dr. Andrew P. Biddle of Detroit has been appointed by Governor Ferris as a member of the State Board of Health for the term beginning January 31.

Dr. Miles F. Porter of Fort Wayne addressed the Calhoun County Medical Society on March 4. The subject of his address was "Hyperthyroidism."

Dr. W. T. Dodge of Big Rapids attended the presidential inauguration ceremonies in Washington. Dr. Dodge went as a member of Governor Ferris' staff.

Dr. and Mrs. Fred Taylor of Carson City have gone to Arizona in the hope that the climate of that state will have a beneficial influence on the health of the doctor.

Dr. George Bartley has returned to North Escanaba and resumed practice after an absence of several months, during which time he pursued a postgraduate course in Chicago.

Dr. G. L. Dixon, secretary of the State Board of Health, has consented to edit a page devoted to public health matters in The Journal. The May number will contain this new department.

The meeting of the Upper Peninsula Medical Society will be held under the auspices of the Marquette-Alger County Society at Ishpeming. The exact dates in July have not as yet been determined.

Provision for an infant clinic, to be operated under the supervision of the health department, has been made in the annual budget of the city of Grand Rapids. Health Officer Slemons is in charge of this movement.

The common council of Monroe has submitted a proposition for bonding Monroe for $10,000 for the purpose of creating a fund wherewith to erect a municipal hospital. This proposition will be voted on at the April election.

Dr. Glenn A. Bulson, recently of Vicksburg, sailed January 11 for Europe. He will pursue special studies at Vienna and Berlin in the eye, ear, nose and throat clinics. The doctor expects to return during the latter part of July.

Medical inspection of all students in the public schools of Port Huron will be provided as a result

of a ruling by the board of education. The inspection will be conducted gratis by the St. Clair County Medical Society.

Dr. Roswell Park of Buffalo addressed the Detroit Academy of Medicine on February 23. The subject of his address was "Medicine and Surgery in Classic Art," with lantern-slide illustrations. A dinner was tendered Dr. Park at the Detroit Club.

Dr. Guy L. Kiefer, health officer of Detroit, who is one of the state lecturers appointed by the lecture bureau of the American Medical Association, addressed public health meetings in Kalamazoo, Cadillac and Manistique during the past month.

Dr. U. DeVries of Grand Rapids, who was severely injured during the latter part of February when the automobile in which he was riding was struck by a train, has gone to Chicago. He contemplates having a plastic operation performed on his nose.

The Flint Maternity Home and Children's Hospital Board has been organized by Flint society women to raise $10,000 for the erection of a home and hospital. The Hurley Hospital will donate sufficient land next to their buildings for the purpose of this new home and hospital.

Dr. Robert L. Dixon of the State Board of Health addressed a public meeting of the council and water board of Alpena on February 16. Largely as the result of this meeting, Alpena has caused the installation of a chlorinating system for the purification of its water-supply.

The city hospital board of Flint has decided to build an addition to the Hurley Hospital. The building of this addition will provide fifteen new rooms at an expenditure of about $15,000. The hospital authorities will devote these rooms to the care of infants and maternity cases.

Since the common council of Jackson has seen fit not to appropriate the requisite funds for the erection of an annex to provide additional facilities for the City Hospital it is intimated that the movement has been started to induce the Catholic Church to erect a Catholic hospital in that city.

The last issue of the *Bulletin* of the State Board of Health is devoted to the publication of an address on "Eugenics" by Dr. V. C. Vaughan, Sr. If you have not heard Dr. Vaughan's address it is suggested that you send to the secretary of the board for a copy of the *Bulletin* that contains this valuable and interesting article.

The failure of the hospital committee of Holland to raise sufficient money to build a hospital suitable to the needs of that city has again been taken up and a new impetus has been given to the project by the receipt of an offer in which the donors agree to provide the site for the building. Fifteen thousand dollars has been subscribed.

Dr. J. B. Kennedy of Detroit was elected president of the Detroit Board of Health for the fourth time at the annual meeting held on March 10. In addition to Dr. Kennedy the following officers were appointed: Dr. C. H. Oakman, vice-president; Dr. Guy L. Kiefer, health officer, and John F. McKinley, secretary.

In conformity with a resolution adopted at the last meeting of the Association of American Medical Colleges, the Detroit College of Medicine has adopted the five-year course and hereafter all matriculates will be required to take a year's course in physics, chemistry, animal biology and modern languages. The requirement will become in force on Jan. 1, 1914.

Governor Ferris has appointed the following delegates to represent Michigan during the Fourth International Congress and School of Hygiene, to be held in Buffalo, N. Y., August 25-30: Luther L. Wright, Lansing; T. M. Koon, Grand Rapids; R. L. Dixon, Lansing; J. H. Kellog, Battle Creek; A. S. Warthin, Ann Arbor; Guy L. Kiefer, Detroit; L. L. Forsythe, Ionia.

The sixty-third anniversary of the founding of the Medical Department of the University of Michigan was celebrated in Ann Arbor on February 19. The speakers were Dr. Abraham Jacobi, New York City, and Dr. Willett Herrington, Bad Axe. The subject of Dr. Jacobi's address was: "What are Doctors Good For?" In the morning the doctor gave a talk before Dr. Vaughan's class in hygiene on the work that is being done in the larger cities to bring about better sanitary conditions and to teach the people how to live and keep well. The subject of Dr. Herrington's address at the afternoon meeting was: "The Country Doctor." In the evening the Ann Arbor Medical Club tendered a reception to the faculty, medical students and invited guests.

The following interesting tabulation of the causes of death in Michigan has been tabulated by the secretary of the State Board of Health:

While the general health of the state for 1912 was much better than during the previous year, the death-rate from cancer increased from 72.3 per thousand to 74.3. The rate of death from violence decreased from 83 to 76.3. The rate on diarrheal enteritis decreased from 52.9 to 44.

The deaths in Detroit from all causes during the year were 7,785, or a rate of 15.1 per thousand. The detailed causes of death were: under 1 year, 1,984; from tuberculosis, 486; from typhoid fever, 88; diphtheria, 188; scarlet fever, 58; whooping-cough, 78; pneumonia, 923; diarrhea, 472; cancer, 367; violence, 524.

The following appointments to the medical staff of the Detroit General Hospital are announced by Dr. John N. E. Brown, superintendent: department of internal medicine—director, Dr. Frank J. Sladen, Baltimore; Dr. Homer E. Safford, senior associate; general surgery—director, Dr. H. N. Torrey; senior associate, Dr. H. W. Hewitt; diseases of children—director, Dr. R. S. Rowland; senior associate, Dr. T. B. Cooley; associate, Dr. D. J. Levy; abdominal and pelvic surgery—director, Dr. William F. Metcalf; senior associate, Dr. E. K. Cullen; diseases of ear,

nose and throat—director, Dr. J. E. Gleason; genito-urinary surgery—director, Dr. Harry W. Plaggemeyer; obstetrician, Dr. W. H. Morley; orthopedic surgery, Dr. F. C. Kidner; diagnosis and research—director, bacteriologist and pathologist, Dr. C. R. Meloy, and roentgenologist, Dr. W. A. Evans.

The annual meeting of the Michigan Health Officers' Association was held in Ann Arbor February 26-27. The following papers were read: "Sanitation in its Relation to Public Schools," L. L. Wright; "What Constitutes a Model Milk Ordinance," Dr. A. H. Rockwell; "An Enlarged Public Health Service," Dr. R. L. Dixon; "Eugenics," Dr. V. C. Vaughan; "Municipal Control of Venereal Diseases," Dr. A. F. Fisher; "The Public Health Nurse and Her Work," Dr. Guy L. Kiefer; "Altruism in Public Health Work," Dr. W. H. Sawyer; "Early Diagnosis of Tuberculosis," Dr. V. C. Vaughan, Jr.; "Bovinine Tuberculosis in its Relation to Public Health," Dr. Ward Giltner.

The following officers were elected for the ensuing year: President, Dr. Guy L. Kiefer, Detroit; vice-president, Dr. T. J. Langois, Wyandotte; second vice-president, Dr. T. M. Koon, Grand Rapids; third vice-president, Dr. A. F. Fisher, Hancock; fourth vice-president, Dr. Edward Goodwin, Bay City; secretary-treasurer, Dr. R. L. Dixon, Lansing.

Dr. M. L. Holm, bacteriologist of the State Board of Health, has received a ruling from the postal authorities relative to the admission of specimens of diseased tissues and information concerning them as parcels-post matter.

Previously, on account of a written description enclosed with the specimens, the matter was held to be under the first class classification and parcels forwarded to the department with parcels post stamps have been held up by the postmasters for extra postage. The packages, which average five ounces for tuberculosis and eight ounces for diphtheritic specimens, at first class rate, became very expensive and the matter was taken up with the authorities.

The following ruling was secured: "Specimens of diseased tissues, including specimens of diphtheria and tuberculosis, are admissible as parcels post matter and must be paid by parcels post stamps as other matter of that class; that though such specimens constitute mail of the fourth class, it shall be labeled 'specimen for bacteriological examination' when it shall be pouched with letter mail."

The part of the ruling that is of interest and importance is as follows: "Sample forms bearing the names and address of patients from whom a specimen of sputum has been taken, together with the names and addresses of his physician and health officer and other information concerning the patient, all for the purpose of description, such inscriptions are regarded as permissible additions to fourth class mail and may be enclosed with these specimens without subjecting them to more than the fourth class rate of postage."

A bill has been introduced into the legislature in which are incorporated the ideas of Prof. V. C. Vaughan, Sr., for the establishment of an efficient department of health.

The foundation of this bill is the division of the entire state into health districts. These districts are to comprise one county each except in instances of exemption. Counties in which there are cities of more than 18,000 population shall have the district outside such cities considered as a district or part of a district. Any two counties having a population of less than 20,000 each, exclusive of cities of more than 18,000, may be organized by the State Board of Health as a joint health district.

Cities of 100,000 or more are exempt from the provisions of the law. Cities of 18,000 or more and less than 100,000 will be considered as independent health districts.

Each district shall have a health commissioner appointed for a term of four years. In counties the appointment will be made by a board consisting of the probate judge, commissioner of schools and the county clerk. In cities this board will be composed of the mayor, superintendent of schools and the city clerk. In joint districts the two probate judges, two county school commissioners and the county clerk of the largest county will act. Applicants must pay an applicant's fee of $10 to be eligible to take the examination and must be a licensed physician.

Counties will pay from $1,500 to $3,000 per annum, according to the population, and cities from $3,000 to $6,000. The health commissioner shall act as county physician. The bill is known as the Amberson bill.

Deaths

Bigelow, Delno M., M.D. Detroit Homeopathic College, 1904. Member of Wayne County Medical Society, former member Detroit Board of Health. Died at his home, 1051 Mt. Elliott Avenue, Detroit, Feb. 24, 1913, from overwork, aged 38.

Wilson, J. E., M.D. Rochester, Mich. Oldest practicing physician in Oakland County. Graduate of the Castelton Medical College, Vermont. Resident of Rochester for sixty years. Volunteer surgeon in the Civil War. Died at his home, March 7, 1913, aged 84.

May, Robert J., M.D. Metamora, Mich. University of Michigan, 1892. Died at his home on March 4, 1913, after an illness of five days, from pleuropneumonia, aged 43. Dr. May was a member of the Lapeer County Medical Society. Interment took place at his old home in St. Thomas, Ont.

Barry, J. A., M.D. University of Pennsylvania. Member of Tri-County Medical Society, member of state legislature 1906-1908, chairman Wexford County Board of Supervisors for ten years; ex-superintendent of the poor, and president of Harrietta. Died at his home in Harrietta, Feb. 9, 1913, aged 64.

Society Proceedings

ALPENA COUNTY MEDICAL SOCIETY

The regular meeting of the Alpena County Medical Society was held Feb. 19, 1913, in the parlors of the New Alpena House.

The guest of the evening was Dr. E. E. Barclay, efficiency expert of the Alpena Chamber of Commerce, who was entertained at a 6-o'clock dinner in the dining

rooms. Those present were: Drs. D. A. Cameron, S. T. Bell, A. E. Bonneville, Otto Bertram, Leo Secrist, E. E. McKnight, W. A. Secrist, J. F. McDaniels, J. D. Dunlop, J. W. Small, A. Gaureau and C. M. Williams.

Following the dinner Dr. Barclay addressed the society on "Civic Responsibility of the Physician." "Physicians," Dr. Barclay stated, "are the most powerful men in the community. If they are not leaders and molders of public thought, they are not fulfilling their opportunities."

Other men taking part in the program were Drs. Bertram, Bonneville, Dunlop, Secrist and McKnight.

The next meeting will be held on March 19, at which time Dr. E. E. McKnight, our new president, will entertain the society. C. M. WILLIAMS, Secretary.

BAY COUNTY MEDICAL SOCIETY

The Bay County Medical Society held four meetings during February, 1913, with an average attendance of about twenty-five.

The February 11th meeting was held in the ordinary of the Wenonah Hotel at 8 p. m. Attorney A. H. McMillan, one of the city aldermen, was the guest of the evening and read a paper on "Medical Jurisprudence, Including the Workmen's Compensation Act." The paper was a very timely one and was received with a great deal of interest. Mr. McMillan answered a number of questions put to him by the members.

Following the paper and discussion, the Society enjoyed a complimentary buffet luncheon given by the surgeons of the Society.

On February 18, the guest of the evening was Dr. George E. McKean of Detroit. At 6 p. m. a number of members had dinner with Dr. McKean in the ordinary of the Wenonah Hotel. At 8 p. m. the meeting was called to order at the same place. Dr. McKean gave a talk on "The Clinical Significance of Blood-Pressure." A Tycos sphygmomanometer with enlarged dial was used in demonstrating the technic of taking the pressure.

Abstract: Blood-pressure depends on cardiac energy, resistance against which the heart works, elasticity of vessels, and the amountof blood in circulation. Pressure varies with exercise, excitement, during digestion and with sex. Best time to take pressure is two hours after meals. Exercise is an important factor in ascertaining the true condition of tension in vessels. A reading below 100 or above 150 is considered pathologic. Important to insurance companies and in recognition of approaching shock in anesthesia or surgery, and in diagnosis of arterial sclerosis. Pressure is low in tuberculosis, typhoid fever, anemia and epilepsy. Increased in cerebral tension, tumors of brain, hemorrhage and anemia. Important in obstetrics—high pressure means danger. There is danger in lowering a high blood-pressure. We must find the cause, whether due to the heart itself, to weak walls, amount of blood or nervous control.

On February 25 the Society held its meeting at the Bay City Club, being called to order at 8 p. m. The paper of the evening was read by Dr. E. C. Warren of Bay City on "The Differential Diagnosis of Appendicitis and Reflex Abdominal Pain." The paper was illustrated by charts and drawings.

Abstract: The history of appendicitis and its recognition as a surgical disease was gone into and the importance of securing a history of the cardinal symptoms in the proper order was emphasized. We must have (1) pain, (2) nausea or vomiting, (3) local tenderness, (4) fever and (5) leukocytosis, in the order named, in an acute primary attack of appendicitis. Several cases were reported; one in particular in which an attack of pneumonia was mistaken for appendicitis because not enough care was exercised in securing the syndrome of symptoms in the order named.

The paper was freely discussed. After the paper and discussion, a buffet luncheon was served by the eye, ear, nost and throat specialists of the Society.

At the March 4, 1913, meeting of the Bay County Medical Society Dr. H. E. Randall of Flint read a paper on "Dyspepsia and Indigestion From a Surgeon's Viewpoint."

Abstract: According to the findings of Pableau of St. Petersburg, 70 per cent. of the cases of stomach trouble brought to the attention of doctors arise from diseases foreign to the stomach. The digestive tract can be likened to a chemical laboratory. The drinking of water during meals is not harmful, but on the contrary water increases secretion of gastric juice and is a wholesome drink. The principal troubles with the stomach itself are ulcers and cancers. Dyspepsia is due either to general disease or arises outside the stomach itself, or is due to some disturbance of the stomach.

The paper was illustrated with colored charts.

The Society extended a vote of thanks to Dr. Randall for his courtesy in addressing the Society.

H. N. BRADLEY, Secretary.

CHIPPEWA COUNTY MEDICAL SOCIETY

The regular meeting of the Chippewa County Medical Society was held in the Park Hotel, Sault Ste. Marie, on March 4, 1913. The meeting was called to order by President Husband with a representative attendance of members present. The minutes of the last meeting were approved as read. Several clinical cases were reported and discussed.

The program consisted of two papers: "The Question of Diet," was the title of the paper that was presented by Dr. A. E. Lemon. Dr. R. E. Stocker, Brimley, read a paper entitled, "Growing Disrespect of the Laity Against the Doctors." Both of these papers received extensive discussion by the majority of the members present.

A letter was received from Dr. Bret Nottingham, Lansing, in regard to the chiropractic bill. After discussing this matter it was decided that each individual member of the society should write to the senator and representative of this district setting forth their disapproval and protest against the passage of such a bill.

JAMES GOSTANIAN, Secretary.

GRATIOT COUNTY MEDICAL SOCIETY

The regular meeting of the Gratiot County Medical Society was held at the Wright House, Alma, Feb. 27, 1913.

Dr. W. M. Drake, Breckenridge, was elected delegate to state society meeting at Flint; Dr. L. A. Howe, Breckenridge, alternate.

A very interesting lantern slide demonstration of "The Use of the Roetgen Ray in Surgery and Internal Medicine," was given by Dr. Preston M. Hickey, Detroit.

Much interest was elicited by this paper, Dr. Hickey presenting several new aspects of this most valuable adjunct to modern medicine and surgery.

E. M. Highfield, Secretary.

DELTA COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Delta County Medical Society was held at Escanaba, Feb. 14, 1913. Current medical events were informally discussed.

H. W. Long, Secretary.

GENESEE COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Genesee County Medical Society was held in the Masonic Temple on Feb. 26, 1913.

President Bates introdnced Dr. Wile of Ann Arbor, who occupies the chair of syphilology and dermatology in the University of Michigan, as the principal speaker of the meeting.

Dr. Wile talked on the "Diagnosis and Treatment of Syphilis." A number of clinical cases were kindly brought by the members and Dr. Wile held an interesting clinic.

The paper was discussed by Dr. E. C. Rumer.

Dr. Whitaker reported a case of anophthalmos.

Dr. Wile was extended a vote of thanks and elected an honorary member of the society.

Following the meeting the members were invited to the home of Dr. and Mrs. Bird, 419 East Keasley Street, where a dutch lunch was served and the time was informally spent at cards.

A special meeting of the Genesee County Medical Society was held March 10, at 4 p. m., in the Masonic Temple.

Dr. F. C. Warnshuis, secretary-editor of the Michigan State Medical Society, read a very interesting paper entitled: "The Open Treatment of Intractable Fractures." The discussion was opened by Dr. Manwaring, followed by Drs. Randall and Wheelock.

On motion, Dr. Warnshuis was given a vote of thanks and elected an honorary member of the society.

A banquet in honor of the president, Dr. W. H. Sawyer and the secretary, Dr. F. C. Warnshuis, was held in the Bryant House at 7:30 p. m. Dr. Randall was the toastmaster and the following toasts were responded to: "Sixty Years Ago," Dr. R. N. Murray; "Practicing Medicine in the Lumber Woods," Dr. C. H. O'Neil; "Up in New York State," Dr. G. R. Goering; "The Charge up San Juan Hill," Dr. E. C. Rumer; "Pickaninies," Dr. W. J. Orr; "An Eye for an Eye," Dr. S. T. Conover; "Babies," Dr. J. C. Benson; "The Man on Horseback," Dr. C. B. Burr; "Our Journal," Dr. F. C. Warnshuis; "The Michigan State Medical Society," Dr. W. H. Sawyer.

C. P. Clark, Secretary.

KALAMAZOO ACADEMY OF MEDICINE

Program of Last Meeting

Neurologic clinic at Kalamazoo State Hospital by Drs. Ostrander, Inch and Rawlings.

Early classification of insanity: (a) Early elation; mental elation; (b) mental depression; (c) alternating periods of elation and depression; circular insanity; (d) maniacal, depressive—12 to 20 per cent. of all insanity; 55 per cent. women, 45 per cent. men.

There is no specific type of melancholia; 80 per cent. of the maniacal-depressive cases have degenerate history. The Odell bill is particularly applicable to this class. Fifty per cent. of all the people have some degeneracy in their ancestors.

First group of four cases demonstrated the above classification.

Second group: Dementia praecox—mental deterioration:

Case 1 demonstrated hebephrenic type of dementia praecox; age 19; was very precocious when in school. Disturbance of emotional field; moral deterioration; impulsive.

Case 2. Catatonia—religious delusion, actively hallucinated. Muscles are rigid, so that the patient remains in one position for hours at a time, until exhaustion supervenes.

Case 3 demonstrated the paranoid form, which presented delusions of grandeur and pronounced self-importance.

Dr. Inch presented a group of cases, of which he first demonstrated the Hunnington type of chorea. Development after 30. Hereditary type, also known as the senile type. No pathologic changes in cord or brain of those that die from this type.

Case 2. Multiple Sclerosis. Development as early as childhood. Confused with hysteria. Symptoms: weakness of arms and lower limbs, dimness of vision, blindness, shooting pains, intentional tremor, visual field contracted, nystagmus, monotonous or scanning speech. Mental deterioration comes late. Delusions of persecution and hallucinations of sight and sound. Patient had an aunt insane; had an alcoholic history; frequently drunk.

Cases 3 and 4. Progressive muscular atrophy and amyotrophic lateral sclerosis; atrophy of the thenar muscles of hand, with progressive muscular atrophy of arm, shoulder and body. In addition to this, in amyotrophic lateral sclerosis, a spastic condition of reflexes develops, which shows envolvement of lateral columns.

Patient No. 4 was irritable, impulsive, untidy of habits, reflexes increased, no Babinski or ankle-clonus, muscles of thumb and hand react to reaction of degeneration.

Cases 5 and 6 were those of general paresis. Convulsions after 35 should be called those of general paresis.

Demonstration of lumbar puncture: Entrance to spinal is made on a line with the crest of ilium and spine of fourth lumbar vertebra and little to one side of spine. Steel needle, caliber 103 to 169.

Laboratory Tests of Blood and Spinal Fluid, by Dr. Rawlings

In investigating the blood of luetics and non-luetics, Wassermann found that they reacted differently in solution. In the non-luetics there was a giving up of the hemoglobin of the corpuscles with a tinging of the solution a uniform red. In the luetic solution the corpuscles retained their hemoglobin and sank to the bottom of the test-tubes in a red heap, with the clear fluid above. The difference in reaction depending on the antibody which had developed in the luetic blood. Hemolysis is normally due to the action of an element in the blood-serum, conveniently termed the complement. Its action depends on another element normally in the blood, which affects the corpuscles, rendering them sensitive to the action of the complement. It is called the amboceptor. Without the sensitizing influence of the amboceptor, no hemolysis can occur. It

was found that the luetic antibody acted more effectively when the extract of animal tissue was present in the solution, portions of luetic tissue or the alcoholic extract of non-syphilitic tissues such as the liver or heart. This extract was termed the antigen. A combination of the antibody of the luetic serum and the antigen occurred to prevent the hemolytic action of the complement by fixation of the complement. With normal blood we have the following reaction: Corpuscles plus normal blood-serum plus antigen plus complement plus amboceptor = hemolysis. The syphilitic blood-serum, the following reaction: Luetic blood-serum with its antibody plus amboceptor plus complement plus antigen plus corpuscles = no hemolysis. Wassermann reaction has been obtained as early as eight days after the initial lesion. About 92 per cent. of the primary stage give a positive Wassermann; 95 per cent. of the secondary stage give a positive Wassermann, and 89 per cent. of the tertiary stage give positive. The positive findings then decrease in the early and late latent syphilitic conditions. In the parasyphilitic conditions it increases again, paretics giving 86 per cent. positive Wassermann; tabetics and cerebralspinal syphilitics, 68 per cent. Hereditary syphilis gives 100 per cent.

When applied to the cerebralspinal fluid the Wassermann test is not so reliable as with the blood-serum. This is thought to be due largely to the alkalinity of the fluid, and investigators rely more on the laboratory tests for globulins in the fluid than on the Wassermann. According to Noguchi, positive Wassermann is obtained in 73 per cent. of paretics, 54 per cent. of tabetics, and 50 per cent. of cerebralspinal syphilitics. Other observers hold that only 10 per cent. of the above give a positive Wassermann unless a very large amount of cerebralspinal fluid is used.

Globulin occurs in the cerebralspinal fluid wherever there is a destructive process going on in the central nervous system. There is normally a small amount of albumin, but one form of albumin (nucleo-albumin) occurs only in disease of the nervous tissues, the faintest trace indicating an active disease process. Nonna and Apelt, two investigators, found that saturate ammonium sulphate would throw down the nucleo-albumin in the cerebralspinal fluid as a trace of opalescence, opalescence or clouding, according to the degree of involvement. The fluid must be free from blood-corpuscles, and the test made with the utmost care to prevent false findings. By taking this same fluid and filtering out the nucleo-albumin obtained and adding a few drops of acetic acid and boiling, serum albumin was thrown down as a clouding or flocculent precipitate, according to the involvement. A method of estimating the total amount of serum albumin is that of centrifuging the fluid with picric and citric acid in special tubes. A finding of not more than 0.02 per cent. of albumin in the fluid indicates a pathological process. Up to .07 is indicative of paresis, higher than that of purulent meningitis or cerebralspinal syphilis.

In addition to the globulin index and the albumin content, lymphocytes are sought for in the fluid. One to five cells to the c.mm. may normally exist; five to nine cells is considered border line; above nine cells, pathological. Paresis gives from ten to eighty cells to the c.mm., and cerebralspinal syphilis from 80 to 1,400 cells to the c.mm. The only other condition in which there may be a large cell count is in purulent or tubercular meningitis, especially the former. High cell counts are obtained near the large industrial centers of the country, where the paretic types are more aggravated than in the inland districts. The causative factor being supposedly the greater stress in the struggle for existence.

Luncheon

The meeting adjourned from Pathological Laboratory to the Auditorium, where a luncheon had been prepared for those present through the courtesy of Dr. Noble and his assistants.

Business Session

Following luncheon a short business session was held. Dr. Ostrander read the Glassner and Odell bills. A committee, composed of Drs. Ostrander, Inch and Stone, was appointed and instructed to endorse these bills; to notify Senator Grace of this endorsement by the Academy, and that he should spread this endorsement on the journal of the senate.

Resolution, offered by Dr. R. E. Balch, Dr. Inch supporting, that the Academy express appreciation of the significance and importance of the work carried out by Rev. Caroline Bartlett Crane, through which meat inspection may be applied in a more rigid and efficient manner.

Abstract of Paper on "Louis Pasteur, His Life Work," by Dr. Chas. Hitchcock, Detroit, Mich.

Louis Pasteur, whose ancestors were tanners for three generations, born at Dole, France, Dec. 26, 1822, developed early the serious and studious bent of mind which led him to those habits of patient, painstaking industry that characterized all his work.

Trained in scientific paths, he early developed a fondness for the problems of chemistry, and did important work on problems of fermentation connected with the manufacture of wine and beer. These gave him prominence, and he was drafted by the government for investigation of the silkworm disease, and later for probing the mystery of different diseases which were devastating the sheep, the pigs and the chickens of France.

He saved immense sums not only to the silk industry but also to the stock raisers, and in his development of vaccines proved a pioneer in this field of therapy. Though not trained in usual medical paths, he was elected to the Academy of Medicine, became an apostle of asepsis, pointed out the nature of puerperal infections, the necessity of sterilization, and was a veritable prophet of a new era in surgery. Lister acknowledged his debt to him, and the nation publicly and repeatedly recompensed him.

His crowning triumph was his inoculations against hydrophobia, and though he died with ambitions still unfulfilled, he had keen satisfaction in the great good which he had accomplished, and received plaudits and honors and financial rewards from a grateful nation, medical and other scientific bodies, and the highest recognition he could have desired. Yet he never swerved from the path of patient industry and simple industry, and advised his hearers to "cutivate the serene peace of laboratories and libraries" in their quest for new truth.

He died Sept. 28, 1895, and left, as a precious legacy to science, the story of his indomitable will, unflagging energy, simple modesty, high purpose and patient industry.

His scientific achievements are the glory of France, who showed herself a grateful and appreciative country.

Joint Session

Kalamazoo Academy of Medicine and the annual meeting of the Kalamazoo Anti-Tuberculosis Society met in joint session on the evening of February 25.

Officers elected for ensuing year: president, Herman Ostrander, M.D., vice-presidents, J. J. Knight, W. O. Jones, C. A. Blaney, J. B. Jackson, M.D.; treasurer, S. R. Light, M.D.

Dr. B. A. Shepard, chief of staff, reported that patients had made over 200 calls to dispensary on Lovell Street.

Dr. G. L. Kiefer gave an interesting and lucid paper on "Guiding a City's Health."

Drs. Cullen and Cumming will be our guests at a luncheon at the Burdick, on Tuesday, March 11, at 12 o'clock noon.

Dr. A. H. Rockwell attended the meeting of health officers held in Ann Arbor, February 26 and 27.

Dr. A. Hochstein submitted to the surgical relief of gall-stones, recently. Dr. John Fletcher is convalescing from a protracted illness. Their friends and colleagues wish them a speedy recovery.

The state medical journal has been reconstructed. The present issue is a very attractive and interesting one.

C. B. Fulkerson, Secretary.

KENT COUNTY MEDICAL SOCIETY

The regular meeting of the Kent County Medical Society was held at the Board of Commerce Chambers, Feb. 26, 1913.

Dr. T. C. H. Abelmann of the Michigan State Soldiers' Home read a paper entitled "The Treatment of Trigeminal Neuralgia by Superficial Injection of Osmic Acid and Alcohol." Dr. Abelmann's paper, based on his large experience at the Soldiers' Home, was exceedingly practicable and will appear in a later number of The Journal. A good discussion followed the reading of this paper.

At the regular meeting of the Kent County Medical Society, held March 26, 1913, at the Board of Commerce Chambers, Dr. Allen B. Kanavel of Chicago read a paper on "Experiences of Ductless Gland Surgery."

Abstract: The present discussion deals with morbid changes which ensue on disease of the testicles, ovaries, thyroid and hypophyses. The interrelation of these glands is well known. The particular question under discussion is that dealing with the growth of the individual, in the first instance; and secondly, with the mental changes incident to the disease. Relative to this we have the change in the structure of the bone. These phases vary. Experiments on dogs, in which splenectomy was done, were detailed as bearing on the question of osteomalacia (a case of which, with operative results, was reported). The relation of mental changes, dementia praecox, etc., to the glands and the thyroid was considered with the reports of several cases operated on in which these conditions were the prime factors. The side of undergrowth and overgrowth in relation to the hypophysis was considered, with the pathology and the clinical results in leontiasis ossea, acromegaly and dwarfs, were discussed, with a report of cases operated on.

E. W. Dales, Secretary.

LENAWEE COUNTY MEDICAL SOCIETY

The Lenawee County Medical Society met in the public library, Adrian, Tuesday, Feb. 25, 1913, with a good attendance present.

At the last regular meeting it was decided to hold two meetings during each month; on the second and fourth Tuesdays for the remainder of this year.

The society also decided to follow the lesson plan of the American Medical Association together with special papers by visiting physicians.

Dr. Sprague of Palmyra was the leader of the lesson on anatomy and physiology of the heart and demonstrated his remarks which were interesting as well as instructive.

The next meeting will be held at Adrian on March 11.

George M. Lochner, Secretary.

MARQUETTE-ALGER COUNTY MEDICAL SOCIETY

At the January, 1913, meeting of the Marquette-Alger County Medical Society the following officers were elected: president, Paul Van Riper, M.D., Champion; vice-president, C. J. Larson, M.D., Marquette; secretary-treasurer, H. J. Hornbogen, M.D., Marquette.

Upon resolution it was decided to hold four meetings during the year, in the months of March, June, September and December.

The meeting of the Upper Peninsula Medical Society will be held under the auspices of the Marquette-Alger Society sometime in July, at Ishpeming.

H. J. Hornbogen, Secretary.

MONTCALM COUNTY MEDICAL SOCIETY

The Montcalm County Medical Society will meet at Hotel Phelps, Greenville, April 10, 1913, at 10:30 a. m. The following is the program of the meeting:

Call to order by the president, Dr. L. E. Kelsey. Reading of the minutes of last meeting. Reception of new members. Paper: "Present Day Aspect of Autogenous Vaccination with Reference to Neosalvarsan and Salvarsan," Dr. F. A. Johnson. Paper: "Relationship of the Country Physician with His City Brother," Dr. James Purdon; discussed by Dr. N. W. Miller. Paper: "The Business Side of the Practice of Medicine," Dr. M. E. Danforth. Paper: "How Can We Make Our Meetings of General Interest," Dr. J. O. Nelson. Paper: "Scarlet Fever," Dr. F. R. Blanchard. Unfinished business.

H. L. Bower, Secretary-Treasurer.

MUSKEGON-OCEANA COUNTY MEDICAL SOCIETY

The regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. Alfred Broche, Muskegon, on Friday evening, Jan. 17, 1913. Dr. Caroline Hedger, Chicago, addressed the society on, "The Child Welfare Movement," for which an organization has been started in Muskegon.

On Friday evening, Jan. 31, 1913, the regular meeting of the Muskegon-Oceana County Medical Society was held at the Occidental Hotel, the society being entertained at dinner as the guests of Dr. George S. Williams. At 8:30 p. m. the meeting was called to order for the scientific program. Dr. Burton R. Corbus, Grand Rapids, was present as a guest of the society and presented a paper on "Cardiovascular Diseases, with Especial Reference to Etiology and Treatment." A general discussion of this paper followed, being opened by Drs. A. A. Smith, J. M. J. Hotvedt and R. G. Olaon, and closed by Dr. Corbus.

The regular meeting of the Muskegon-Oceana County Medical Society was held in the offices of Dr. R. I. Busard, at Muskegon Heights, Friday evening, Feb. 14,

1913. Dr. Busard read a paper on "Fractures, Their Diagnosis and Treatment." Two cases, demonstrating the use and results of the application of bone plates, were presented for clinic.

J. T. CRAMER, Secretary.

ONTONAGON COUNTY MEDICAL SOCIETY

The Ontonagon County Medical Society met in regular session at the Elk Hotel, Ontonagon, March 14, 1913, President E. J. Evans presiding.

Dr. H. D. Cornell of Victoria had prepared a paper on "Fractures," but being unable to attend his paper was read by the secretary. A lengthy discussion followed, calling up many interesting cases from the members.

J. S. NITTERAUER, Secretary.

SHIAWASSEE COUNTY MEDICAL SOCIETY

The regular meeting of the Shiawassee County Medical Society, held at the offices of Dr. D. H. Lamb, March 4, 1913, was preceded by a fish dinner. The society was addressed by former Mayor W. D. Burke on "Outside Opinions of the Medical Man." Mr. Burke noted the educational progress of the physician, holding that because of the higher requirements for a practitioner, the laity receive better service. He extended his best wishes for the continued progress of the "Man of Humanity."

A number of members participated informally, and the meeting was one of interest.

Shiawassee County is striving to secure practically every regular practicing physician in the county for its membership roll this year.

D. H. LAMB, Secretary.

TRI-COUNTY MEDICAL SOCIETY

On Feb. 6, 1913, the regular meeting of the Tri-County Medical Society was preceded by a 6 o'clock dinner, given in honor of the dentists of Cadillac. The meeting was held in the Medical Society's Club Rooms and the greater part of the program consisted of a discussion of quacks and nostrums. As a new dental bill is pending before the legislature, the physicians, by a unanimous vote, instructed the secretary to communicate with the senators and representatives asking their favorable action.

At the February 20th meeting of the Tri-County Medical Society, Dr. J. E. Oden presented a paper on "Immunity." Several charts were exhibited to illustrate and further demonstrate the contents of the paper. A frank discussion followed.

March 6, 1913, at the regular meeting of the Tri-County Medical Society, Dr. B. H. McMullen read a paper on "The Anemias," and Dr. R. Brodeau presented one on "Diseases of the Pericardium." These papers were thoroughly discussed by the members of the Society.

A program for the entire year has been prepared. The first half of the year will be devoted to a systematic study of the heart and circulation, while the last half will be given over to diseases of the bones, fractures, dislocations, etc.

The physicians of Cadillac have installed a very complete x-ray apparatus at the Mercy Hospital. While nearly every office contains a coil, this mutual apparatus was purchased in order that patients at the hospital need not be moved when an x-ray photograph is necessary.

RUDOLPH J. E. ODEN, Secretary.

WAYNE COUNTY MEDICAL SOCIETY

The regular meeting of the surgical section of the Wayne County Medical Society was held Monday evening, February 17. The chairman, Dr. F. B. Walker, presided. Dr. Ray Andries, secretary. Dr. A. W. Blain read the paper of the evening on "When Shall We Operate for Goiter?" The importance of the thyroid in maintaining the metabolism has been proved beyond question. The mortality of the simple goiter operation has dropped steadily from 40 per cent. to less than 1 per cent. In the region of the Great Lakes, goiter is very common. In the past, operation was only attempted in the last extremity. The patients used to be told that a skin disease and failing mind would follow operation.

From the standpoint of treatment, goiter cases can be classified as first cases, which recover without treatment; second cases, which recover with medical treatment; third cases, which are surgical after medical treatment has failed, and fourth cases, which are purely surgical.

Often swellings of the thyroid occur in young girls, and at the time of pregnancy. Many of these get well of themselves. The location of the growth in the gland makes more difference as to symptoms than the size. Slight enlargements may give distressing symptoms, while very large tumors may give little discomfort. The diagnosis is usually not difficult, as the thyroid is quite accessible to examination. Medical treatment of tumor masses in the thyroid is quite useless.

The term of exophthalmic goiter is a misleading term for hyperthyroidism, as there may be no exophthalmus and may have no goiter. These cases may be treated medically, but this should not be continued too long. If after a month or few weeks of proper medical treatment the patient is still progressing downward, surgical treatment should be considered. In the earlier and milder cases the superior artery and vein may be ligated. The upper pole of the gland may be ligated. Sometimes each side must be ligated at separate intervals. In the intermediate cases, a lobe may be removed. If the patient is cured after a long continuance of the disease, he is often left a chronic invalid.

Properly executed operation for simple goiter is practically without danger. Surgery of the goiter is much less dangerous to the patient than the disease. Most patients can be cured of the disease and the remainder permanently benefited.

Dr. Spitzley opened the discussion. The subject is one of very great importance. The question of how surgical a disease this is, is not entirely settled. Most cases must, however, depend on surgery for a permanent cure. When the large simple goiter acts mechanical from its size, it is essentially a surgical complaint. It is not at all certain that the symptoms of hyperthyroidism are due to an oversecretion of the thyroid. It may be that the thyroid secretion is perverted rather than simply increased. Every case of thyroid enlargement other than the physiological enlargements of young girls or of pregnancy are surgical. Kocher holds

that all four poles of the glands should be ligated when any operation is required. This may be used as a preliminary operation in cases who are so bad as to forbid the more extensive and severe operation of thyroid extirpation. The ligation cures many of the cases in which it is employed. Many a patient with a large gland is suffering from a hypothyroidism and may need thyroid extract.

Dr. Morse reported parenchymatous and fatty degeneration of heart muscles in cases autopsied. Very often thyroid tissue is found in bone, and the prognosis in these cases is bad. These patients die later from carcinoma of the thyroid.

Dr. S. E. Sanderson reported some of the Mayos' work on goiter. They lay emphasis on the fact that patients suffer as much shock from ligation as from extirpation. An *x*-ray can be taken to show what is back of the sternum.

Dr. Gunsolus reported a case of exophthalmic goiter who died very suddenly, probably from degeneration of the heart muscles. The fibroid thyroid is the most dangerous form.

Dr. R. L. Clark has found many obscure neurasthenics due to thyroid difficulty.

Dr. Hickey is very skeptical as to the value of the thymus shadow which Dr. Bowen claims to have demonstrated in adults. The thymus can be shown by *x*-rays in young children. The compression of the trachea can be demonstrated even in intrathoracic goiter.

Dr. Bell thinks the enlargement of the thyroid in pregnancy in usually physiological. He has seen two permanent cases of goiter develop from pregnancy, one of which was operated on.

Dr. Blain, in closing, said that carcinoma of the thyroid usually developed in glands which have previously been enlarged. The patients do not die from shock after operation, but from an increase of the toxin with which the system is already permeated. The soft goiter is really more dangerous than the fibrous kind. Infiltration anesthesia should not be used. Two per cent. novocain can be used, as is done by Beers.

Mr. Gilberg gave a demonstration of the Swedish system of medical gymnastics.

The regular meeting of the Wayne County Medical Society was held on February 24, with the president, Dr. T. W. Haass, in the chair. Dr. R. L. Clark, secretary.

Prof. Max Broedel read a paper on "Art in Medicine." The reason for the failure of many artists in medical drawing is that failures in other branches of art are thought to be good enough for medical illustration. The scientific inefficiency of the medical illustrator is due to ignorance of the things he draws. Medical illustration is interpretative. Certain things must be emphasized and other things must be suppressed. The medical illustrator must study anatomy and gross and microscopic pathology. The making of all medical drawing should be preceded by studies, both with the hand and eye. Even in microscopic drawing, it is of great advantage if the artist has seen and handled by the gross specimen drawn. The object to be drawn must be judiciously posed as to the source of light view, it can then be made plastic in the drawing. Any drawing loses the advantage of binocular vision. The selection of the view point should be carefully chosen.

The purpose of a good medical picture is to clear up a point which cannot be elucidated in the text. Pictures can be remembered when words are forgotten. Illustrations are also of use in research work, as these may lead to useful discoveries. Out of a hundred medical students about five have enough artistic power to have made good artists. These are usually good medical men.

At the Johns Hopkins two classes of students in art as applied to medicine are taught, one of medical students to learn something of art, and the other of artists to learn something of medicine. About twenty-five lantern slides were shown, illustrating the points brought out in the paper, what can be taught medical students and what can be brought out by various methods of medical illustrations.

Dr. T. S. Cullen, Baltimore, presented a paper on Diseases of the Umbilicus." Many lantern slides were shown, most of them from the literature. The number of children who used to die from umbilical infection was very great. A few cases still die from infection through this source, although this is often very hard to make out. In young children where there is ascites, you get a hernia at the umbilicus. In many cases of peritonitis in children there may be a rupture at the umbilicus and a large quantity of fluid escape and the patient may get well.

The commonest trouble at the umbilicus is umbilical concretions or cholestrotomata. These become infected and may lead to a fistula lasting for years. These need simply be removed and become cured with a simple lotion. Gall-stones may be discharged through the umbilicus. Carcinoma of the umbilicus is nearly always secondary. In the majority of cases, the primary growth is in the stomach. A smooth tumor of the umbilicus, not involving the skin, is usually a carcinoma secondary to malignant disease of stomach, intestine or gall-bladder.

Dr. Longyear moved a vote of thanks to Professor Broedel and Dr. Cullen, seconded. Carried.

It was moved, seconded and carried that Dr. Cullen and Professor Broedel be made honorary members of the society.

The following physicians were elected to active membership: Drs. R. R. Powell, George Reberdy, Nelson MacArthur, A. A. Hughes, Albert McMichael and Dale M. King.

Mr. Harvey S. Bower was elected to associate membership.

Drs. Welsley Taylor and Benj. D'Arcy were transferred from other county societies.

The regular meeting of the Wayne County Medical Society was held on March 3, with the vice-president, Dr. L. J. Hirschman, in the chair, Dr. R. L. Clark, secretary.

Dr. F. C. Warnshuis, the Secretary of the Michigan State Medical Society, read a paper on "The Surgical Treatment of Prolapsus of the Urinary Bladder in the Female, Describing a Hitherto Unpublished Surgical Procedure." Cystocele may be accompanied by prolapse of the uterus. These patients usually have made the rounds and been subjected to many and varied forms of treatment. Dr. Herrick, Grand Rapids, many years ago first did this operation. Dr. Warnshuis has done this thirty-six times and has had but one failure. Dr. Herriek has done it fifty-eight times without a single failure. The operation is done through the abdominal wall and the uterus has a fixation done. A number of these cases have borne children after the operation. There has been no mortality in these 104 cases.

Dr. W. J. DuBois, Grand Rapids, read a paper on "Surgery of the Prostate." The prostate is readily infected from the bladder, urethra or seminal vesicles.

The gland is enclosed in a firm capsule and located at the base of the bladder. The gland attains its full size about the twenty-fifth year and is a sexual gland. Sexual abuses not infrequently lead to an enlargement of the gland and this may be so extreme as to demand surgical intervention. The gland may have an acute infection associated with pain and high temperature. There may be a constriction of the urethra from this swelling and hence stoppage of the urine.

Masturbation and incomplete sexual excitement may, on frequent repetition, cause chronic hypertrophy. This is a condition of old age, coming on about 50 years of age. The mild prostatitis lasting for years may affect the glandular structures, the intestinal tissue or both. The bladder, through retention, becomes distended. This distention may spread up to the ureters and kidneys, threatening life itself. A full bladder may give no symptoms except a dribbling from overflow. The history of the patient is of great service and a careful examination will make the diagnosis clear. The gland can be well examined through the rectum with the gloved finger, aided by a sound in the urethra. The real test of diagnostic skill comes in the differentiation of simple hypertrophy from new growth of the prostate, whether malignant or not. If the growth is limited within the capsule, it may be very hard to diagnose. When the prostate is large enough to obstruct one of the chief sewers of the body, its removal should be considered. Belfield, in 1886, brought out the first removal of the prostate. We are now doing the removal in many cases with a very low mortality. Some surgeons are as firm advocates of the perineal as others are of the suprapubic route. The writer reported a mortality of 66⅔ per cent. by the perineal route and only one death in the last ten cases operated by the suprapubic route. The prostate is enucleated in its capsule by the finger introduced through the bladder and working against the other finger in the rectum. When the gland comes away whole, ejaculation ducts are torn away. The wound in the bladder is not closed but continuous draining left in the abdominal wound. Urine will not come out through the urethra for several days. Hemorrhage must be watched for and properly treated.

Dr. Metcalf opened the discussion on Dr. Warnshuis' paper. The method doesn't violate any anatomical principles and would doubtless accomplish the end aimed at. Dr. J. W. Vaughan opened the discussion on Dr. DuBois' paper. The subject is a very large one. The diagnosis between the hypertrophy of the prostate and malignancy of the prostate is very difficult. The nodular feel of the malignant growth is of diagnostic value. Cystoscopic examination is of great value, especially of those cases with an enlarged middle lobe, with a valve-like growth. Most men here prefer the suprapubic method. Dr. Vaughan uses two guy sutures in the bladder wall, between which the incision is made.

Dr. Brooks uses the suprapubic method and has almost no mortality. Gas and oxygen anesthesia can be used in these operations and help to save these cases. The patients are allowed a head-rest the day following and are allowed up on the next day. Often these cases are better operated on in a two-stage operation. These cases are not all irrigated after operation.

Dr. F. B. Walker held that what is to be gained by prostatic operation is drainage. No one method of operation should be made a routine procedure.

Dr. Carstens has found cases of cystocele vary so much as to forbid routine treatment. The vagina can often be narrowed and the perineum repaired to advantage.

Dr. Spitzley has seldom found much prolapse of the bladder without prolapse of the vagina. The repair of the vaginal tract is often sufficient to correct the difficulty. To add an abdominal operation to all such cases seems rather unnecessary. The two stage operations for cases with badly infected bladders is a great advantage. These cases often die from absorption of the infection through wounded surfaces. Continuous drainage through the urethra by means of a soft rubber catheter in the urethra will aid the healing of the suprapubic wound. The drainage through the anterior wound should be by a tube plus gauze to get capillary drainage. Spinal anesthesia can be used with advantage in these cases.

Dr. Warnshuis and Dr. DuBois closed the discussion.

The medical section of the Wayne County Medical Society held its regular meeting March 10. The chairman, Dr. Hugo Freund, presided; Dr. J. H. Dempster, secretary. The program consisted of a symposium on blood-pressure. Dr. W. J. Wilson, Jr., read a paper on the "Use of the Sphygmomanometer in General Practice."

Hales, in 1733, demonstrated the fact of blood-pressure. Poisenille, in 1828, invented the mercurial manometer in the form of a V-tube; Ludwig, in 1847, made the first kymographion, while it was as recent as 1896 that Riva Rocci and Hill devised the present form of instruments. My personal preference is the Mercer, a mercurial form of apparatus, as the other forms must frequently be tested by one of this type to insure accuracy. The method advocated was the auscultatory, in which after the proper adjustments have been made, the bowl of a stethoscope is placed over the brachial artery at the bend of the elbow, when the air is pumped into the armlet until with the pulsations of the artery no sound is perceived, which gives the systolic point; if now the air is gradually released, with each arterial pulsation, a sound is perceived until the diastolic point is reached, when it disappears. The period between the diastolic and systolic points is called the period of pulse-pressure, and should normally be about 45 mm. The normal limits are: systolic, 110 to 135 mm.; diastolic, 60 to 90 mm. By hypertension or hyperpiesis we generally mean a pressure above 145 mm., by hypotension a systolic of 100 mm. or under. Some of the conditions causing it are nephritis, gout, arteriosclerosis, emphysema, plumbism, conditions of increased cranial pressure, convulsive states, angina pectoris and exophthalmic goiter. Hypotension is a constant feature in tuberculosis, in anemias especially pernicious, diphtheria, scarlet fever, measles, acute rheumatism and typhoid fever.

As a means of differential diagnosis in typhoid fever with hemorrhage we have hypotension, with perforation hypertension; in cerebral hemorrhage hypertension, with cerebral embolism a normal pressure; may be given as examples.

As a means of prognosis in shock following operation a blood-pressure returning to normal is a hopeful sign, while a constantly falling pressure has a dire portent.

The author believes the use of the sphygmomanometer should be as universal and frequent as the use of the thermometer.

Dr. T. A. McGraw, Jr., read a paper entitled "Hypo- and Hypertension; their Mechanism and Therapeutics." Pathologic increase and decrease in blood-pressure are symptoms of disease, not the disease itself. Hypotension depends on a disturbance in one or more of the four factors concerned in the maintenance of arterial tension: cardiac energy, peripheral resistance, the elasticity of the arterial wall and the volume of blood in the vessels. Hypotension is a constant factor in tuberculosis; it increases with the extension of the tuberculous process and diminishes with the arrest or progress of the disease; therefore prognosis can be based on it. In pneumonia, scarlet fever, typhoid, diphtheria and Addison's disease it is also found. The treatment of hypotension is the treatment of the disease in which it is found. In pneumonia it is often necessary to treat the hypotension direct and it is important to know if it is caused by vascular weakness alone or by cardiac failure in addition; if the latter, it is dangerous to give purely vasoconstrictor drugs, such as adrenalin. The pulse-pressure tells us: a high pulse-pressure points to vascular insufficiency, a low one to cardiac failure. The summary on hypertension was as follows:

1. It is a symptom not a disease; so treatment should be directed toward the disease in which it appears.

2. It is usually compensatory and it is better to reduce it indirectly than by direct dilatation of the arteries.

3. When it is necessary to lower tension directly, as in angina or in threatened apoplexy, the blood-pressure should be carefully controlled by frequent readings and should not be lowered beyond what may be considered normal limits for that particular disease, and, finally,

4. Indiscriminate prescribing of vasodilator drugs in every case of high tension regardless of indications is to be condemned.

DISCUSSION

Dr. George McKean agreed that hypertension and hypotension are symptoms and not diseases, therefore required no direct treatment. Hypertension was compensatory in the majority of cases. He thought not enough was made of high blood-pressure in obstetrics, inasmuch as high blood-pressure preceded the albumin. In pneumonias, after the first day or so the blood-pressure was lower. A case was cited of meningitis with low tension. Dr. McKean concluded that with the blood-pressure instrument at hand we should bleed more frequently. He felt that he had obtained good results from venesection.

Dr. James E. Davis presented a chart of blood-pressure readings on students between 20 and 35 years of age. The chart showed the pressure greater in the horizontal position.

Dr. W. M. Donald was impressed with the lack of uniformity in Dr. Davis' statistics, some showing fatalities with a low pressure, showing we could not judge the severity of the case by the high pressure. He thought it was not scientific nor good policy to practice medicine without a sphygmomanometer. The tactile sense was no sure guide to the actual blood-pressure. He concurred with the statement that hypertension was always compensatory and should be left severely alone.

Dr. R. E. Mercer thought we laid too much stress on systolic pressure and too little on circulation. He did not think by any means old cases of hypotension were compensatory. He thought in systolic cases potassium iodid was a good thing, but not where due to arteriosclerosis. Pulse-pressure was subject to great variation. Eighty pulse pressures per se were absolutely useless. The systolic pressure should be taken in connection with pulse-pressure. The systolic pressure was the main thing.

Dr. W. Welz spoke of blood-pressure in relation to pregnancy. Where high blood-pressure accompanied pregnancy it usually did not regain the normal until two or three weeks after delivery. He thought such condition in pregnancy in no sense compensatory but the result of toxemia. He thought the blood-pressure should be controlled during the crisis.

Dr. J. H. Carstens urged the use of the B. P. instrument in connection with pregnancy. He thought that the more blood-pressure taken the earlier the diagnosis. A high blood-pressure meant excess in eating or a little toxemia.

Dr. Delos Parker divided cases of high blood-pressure into two classes: (1) in which we had basic disease and (2) those in which disease was not very prominent. He felt that very little could be done in basic disease.

Dr. C. H. Hitchcock cited cases showing high blood-pressure in faulty living, especially in regard to diet and smoking.

Dr. Wilson and Dr. McGraw closed the discussion.

Correspondence

Mt. Clemens, Mich., March 7, 1913.

To the Editor:—I am sending you a clipping from the local paper, dated yesterday, wherein the Business Men's Association has extended an invitation to Dr. Friedmann to come here and treat tubercular cases; claiming that they controlled the sanitariums and medical fraternity of Mt. Clemens.

I disclaim any knowledge whatever of the matter and a positive order is in this sanitarium to the effect that no consumptive cases will be received in the house and Dr. Friedmann's presence is undesirable if it would involve any possible chance for patients of this class to come in the house to see him.

If you will give this publicity through The Journal, it will be duly appreciated.

Yours very truly,
A. N. Shotwell, M.D.,
Superintendent "The Colonial."

[Comment.—The newspaper article referred to is a front-page article and contains a copy of three letters that have been sent to Dr. Friedmann by the Business Men's Association, the mayor and the health officer of Mt. Clemens. In the letter that was sent by the Business Men's Association we quote the following: "Mt. Clemens is in reality a great sanitarium. The whole business of the city is to heal the sick. . . . The whole city is at your disposal. . . . Our great sanitarium and hotel facilities . . . are absolutely at your disposal."]

County Secretaries' Department

THE success of the meetings of your society depends in a great measure on the secretary. You are not only expected to secure the essayists for your program, but also to so arrange your programs that they will appeal to the majority of your members, and by thus arousing their interest, insure their attendance at your scheduled meetings. The accomplishment of the foregoing duties will tax your energy and will necessitate more or less constant vigilance. It means work and I know of no way in which this important part of your duties can be accomplished through any other means than by persistently endeavoring to prepare your programs with a view of interesting the majority of your members. Your duties do not end with the arranging of your program.

There is nothing that casts such an air of chilliness over a meeting and serves so well to smother a spirit of interest or enthusiasm as the deathly stillness that ensues after the reading of a paper and the pause occurs without a discussor arising to enlarge on or emphasize the points of interest in the paper. Such an incident has spoiled many a good paper and meeting. A successful secretary is one who will have selected three or four members and secured their promise to open the discussion, thus breaking the ice and turning a paper that might have otherwise been a failure into one of exceeding interest and practical value. I know of one secretary who has three or four friends who are always able and willing to participate in the discussion of the subject under consideration whenever they receive the wink from the secretary. This society's meetings are of interest from the moment the meeting opens until adjournment takes place. The foregoing is advanced merely as a suggestion that may enable you to more successfully accomplish the work of your office.

DUES. As much as I dislike to be continually harping on this subject, it is incumbent on me to again remind the county secretaries that all dues for 1913 must be in my hands on or before April 10. Our House of Delegates passed a resolution directing the secretary to drop the names of all members who had not paid their dues on that date from our membership and JOURNAL mailing lists. I have also been directed to publish the names of the members who are in arrears in the May number of THE JOURNAL.

By being thus suspended a member will no longer receive the protection of the Medicolegal Committee and any action that may be brought against him for services rendered during this period of suspension will not be defended, even though he may later pay his dues and be reinstated in good standing. THE JOURNAL will also be discontinued during this period of suspension.

Will you not make the effort to inform all your members who have not paid their dues that it is absolutely essential that they be paid to you before April 1?

On or about April 5 you will receive a list of names of members of your society whose dues are shown as unpaid for 1913 by the records of this office. Kindly return this list promptly so that our copy may be verified before being sent to the printer on April 15.

THE request is again made for reports of the meetings that are held by your society. The publishing of these reports in THE JOURNAL will place your society meetings on permanent record and will be of interest, not only to your members, but also to the entire state. The reading of these reports by your brother secretaries may be the means of assisting them to introduce new and interesting features for their individual societies. Please send in these reports as promptly as possible after each one of your meetings.

DR. G. M. LIVINGSTON, by reason of his removal to Detroit, resigned as Vice-President of the County Secretaries Association. Dr. W. H. Sawyer has appointed Dr. D. W. Roos of Manistique, Secretary of the Schoolcraft County Medical Society, to serve the unexpired term.

THE Council of our Society has authorized the State Secretary to provide a dinner for all the county secretaries in attendance at the annual meeting of this Association. This meeting will be held in connection with the Flint meeting. The officers of the Association are preparing a suitable program. You are urged to plan to attend this meeting.

"All physicians claim to belong to the Medical Profession and enjoy its distinction and advantages. Not so as to organization. All enjoy its fruitage, but few are workers in the field of organization. The "Quack" and the "Charlatan" speaks vociferously of his relation to the profession, but hates organization like poison. Many good physicians never contribute a dollar or an effort towards organization, but as practitioners they are kept alive and protected by organization efforts of self-sacrificing men in the organization." —Selected.

Association News

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION

The Proposed Change in Name

GEORGE H. SIMMONS, M.D., LL.D.
CHICAGO

[Explanatory Note:—This abstract of an address before the Conference of State Secretaries is republished from the American Medical Association *Bulletin* of Nov. 15, 1912, on the request of the Judicial Council. The House of Delegates referred the report of the Committee to Formulate Amendments to the Constitution and By-Laws to Extend Membership, presented at the 1912 session (*Journal A. M. A.*, June 15, 1912) to the Judicial Council with power to confer with constituent associations. The Council, after careful consideration, endorses the proposed change and takes this means of bringing the subject to the constituent associations as well as directing to it the attention of the members.]

I have been asked to discuss the present conditions of membership in the American Medical Association and the proposed change, which has been under discussion recently. While this is not directly related to the object of this conference, the discussion of uniform regulation of state membership, it is so closely connected with it that I cannot refuse to take advantage of the opportunity of discussing the question before such a large representation of state secretaries.

To get a clear understanding of what the present term "members" of the American Medical Association means, it is necessary to go back a little in the history of the Association.

The American Medical Association always has been a delegated body; only "delegates" ever had a right to take part in its proceedings.

"Permanent members" was a term originally applied to those delegates who connected themselves permanently with the Association after they had served as delegates. "Permanent members," however, had no rights except those of attending the meetings and taking part in the scientific work. In 1883, THE JOURNAL was started and the following year, for the purpose of increasing the circulation of THE JOURNAL, there was created another class: "Members by Application." A member of any so-called affiliated society could become a "member by application" simply by making application for membership and paying the annual dues. The difference between "members by application" and "permanent members" was that the latter had been delegates, whereas the former became members simply by making application. Neither "permanent members" nor "members by application" had vote or voice in business meetings.

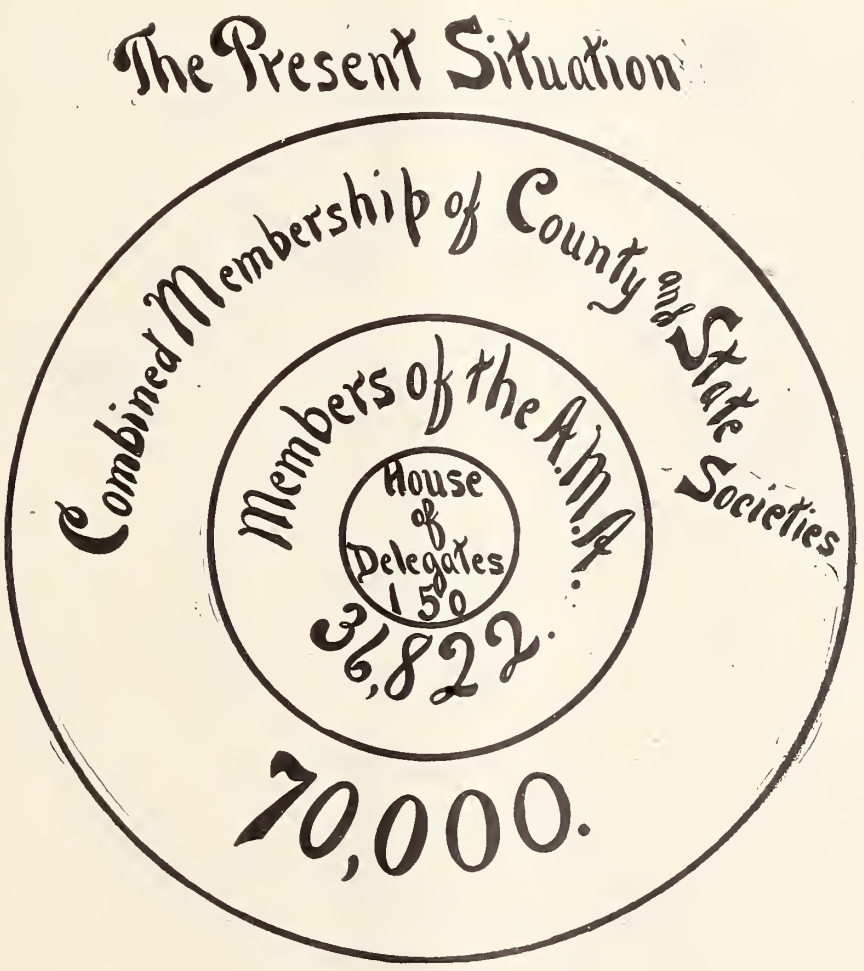


Chart 1

MEMBERSHIP IN THE A. M. A. TO-DAY ON THE SAME BASIS AS THE FORMER "MEMBERS BY APPLICATION"

Briefly, we have the following situation:

1. The voting membership of the organization is the combined membership of all the 2,000 (more or less) component county societies, amounting approximately to 70,000 members. These elect the delegates to the House of Delegates of the state associations; they in turn elect the delegates who form the House of Dele-

gates of the American Medical Association. Before 1901 the delegates to the American Medical Association were elected, or appointed, by the "affiliated" societies, which included local, district and state societies. Since 1901, that is, since the reorganization, the delegates to the national body are elected not by local, district and state societies, but by the state societies alone.

2. The so-called "members of the American Medical Association" are the direct successors of the old "members by application." By their payment of dues and their subscriptions to THE JOURNAL, they were and are to-day the supporting or contributing group of the members of the organization.

3. The House of Delegates is composed of approximately 150 members, who are elected by the various state Houses of Delegates, which are in turn composed of delegates elected by the members of the component county societies. The House of Delegates of the American Medical Association, therefore, is created by, and represents the combined membership of all the county societies of all the states; it is not elected by, nor does it represent, the present "members of the American Medical Association" as such; it never has.

The result is that we have two classes which could be called members. First, the actual, logical memberships of 70,000, usually designated as "the membership of the organization." Second, the 36,822 contributing or supporting members, who are designated as "members," although these "members of the American Medical Association" have no more privileges than have all members of the organization, except the right to take part in section work. This present situation I have had shown on the accompanying chart (Chart 1). The membership of the American Medical Association, at present 36,822, is an inner circle of the membership of county societies, while the House of Delegates is a still smaller circle composed of those who have been elected to represent the members of the organization of the whole country.

Now the situation itself is perfectly logical and is in every way to be commended. The trouble is that we have not named our groups accurately. Those whom we now call "members of the American Medical Association" are really those members of the organization who, in addition to supporting their county and state associations, also contribute to the support of the American Medical Association, while for the actual membership of 70,000 members we have no distinctive name.

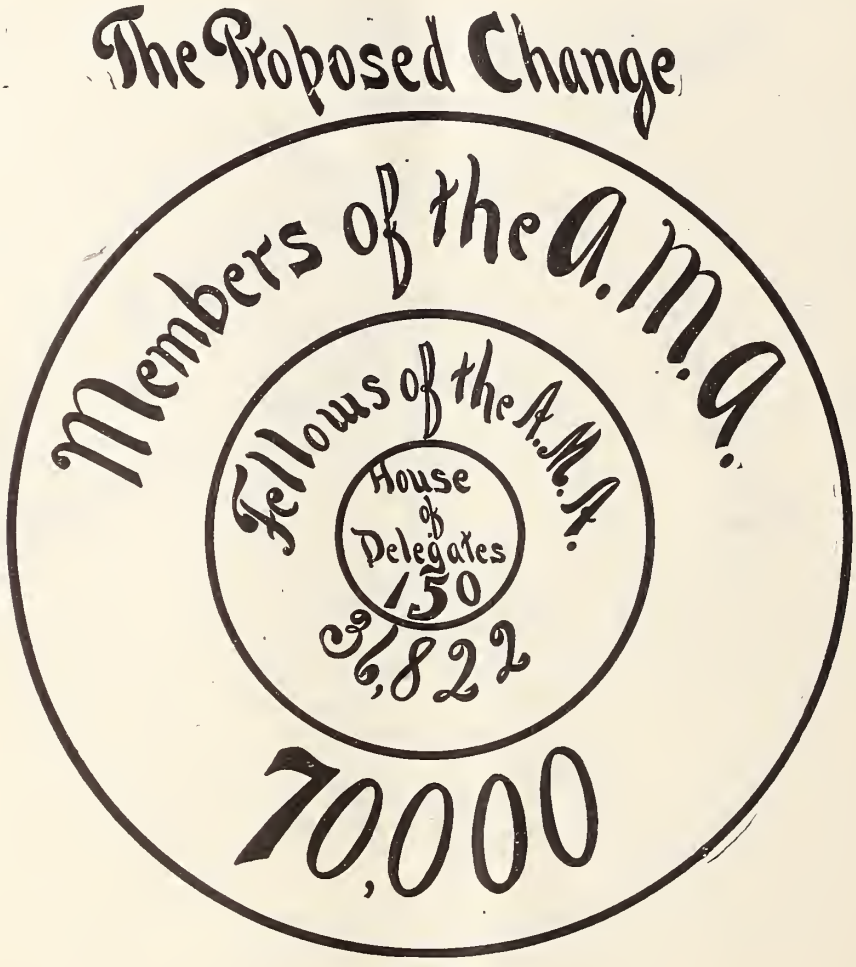


Chart 2

The change that has been proposed is not a change in condition at all. It is simply a change in name. It is proposed to designate the 70,000 members included in the large outer circle (Chart 2) as "members of the American Medical Association," which they really are and always have been, while those included in the inner circle (that is, those members in good standing of their county and state societies, who also pay $5 a year to support the work of the American Medical Association) are to be called "fellows of the American Medical Association" instead of "members." This will make no change in the membership standing or rela-

tions of any man. If this suggestion is adopted, all members in good standing in their state organizations will be designated as "members of the American Medical Association," while those members who contribute $5 a year to support the work of the Association will be designated as "fellows of the American Medical Association." In other words, those who are now known as "members" of the American Medical Association will be known as "fellows" of the American Medical Association, while the term "members" will be applied to the entire, combined membership of the component county societies of the whole country.

This plan has several advantages. In the first place it will give us a name for the entire membership of the organization, which we have never had before. Before 1901 they were referred to as members of "affiliated" societies, and since then they have been called, for lack of a distinctive name, "members of the organization." Another advantage will be that it will make clear that the voting power lies with the 70,000 members and not with the 36,822 "fellows." When this plan was first proposed, some got the impression that the intention was to compel the 70,000 members of the county societies to become "supporting members" of the American Medical Association, as the term is now understood. This, of course, would be a ridiculous proposition. The proposed change contemplates leaving membership conditions exactly as they are; it contemplates changing the name, and not the relation.

One great disadvantage prior to the reorganization of the American Medical Association in 1901 was the fact that we had no name by which to designate the delegates. As soon as the name "House of Delegates" was adopted, then the function of the delegates became clear at once. The Association also has labored under the disadvantage, ever since its reorganization, that there has been no name by which to designate the actual voting membership, because the term "members" had been applied to the supporting body. The proposed change simply recognizes this fact, designating as "members" those who really are members, and designating the supporting members as "fellows."

I have already given some reasons for making the change, but there is another and more important; in fact, it is the paramount reason. Up to the present time, the members of the organization have not realized that they are, in reality, members of the American Medical Association. They regard the American Medical Association as something entirely apart from them, something in which they have no interest. These members of the organization are through their elected representatives responsible for what the American Medical Association is doing, or what it ought to do and is not doing, but they do not realize this, hence they are not interested. They do not appreciate that the House of Delegates of the American Medical Association, which they elect, is the body that is doing the work through the officers, trustees, councils, etc., which they, through their representatives in the House of Delegates of the American Medical Association, select. While only a change in name, I think the subject is of the utmost importance. I hope that all of you will look into it carefully, so as to understand exactly what is intended, and then will explain it to your members at the first opportunity.

Book Notices

The Soul and Sex In Education, Morals, Religion and Adolescence. Scientific Psychology for Parents and Teachers; with a chapter on Love, Marriage, Celibacy and Divorce, by Jirah D. Buck, M.D., Cincinnati: Stewart & Kidd Co., 1912.

This book is too inane to deserve a review. It is from first to last a tirade on religion and religious training. It cannot see that anytning good ever came out of Rome.

Medical Men and the Law. A Modern Treatise on the Legal Rights, Duties and Liabilities of Physicians and Surgeons. By Hugh Emmett Culbertson, Esq., member of the Ohio and New York Bars; Contributing Editor to many Legal Publications. Octavo, 325 pages. Cloth, $3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

The duties, rights and liabilities of the professional man toward the public as settled by the law are largely unknown by the vast majority of medical men. The whole field of the relations of the medical practitioner, whether regular or irregular to the public, as bearing on professional standing, financial matters, collections, malpractice, libel and every other conceivable phase of the matter is treated in this unique volume. The book is written by a lawyer, not a medical man, and hence the viewpoint seems at times a little incongruous to the medical man, but we fail to find much that we can take exceptions to, but rather, very much that we can heartily commend. The cost of the information contained in the book would be prohibitive if obtained in the school of experience, and even at that would lack the classification herein presented.

Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume II. Number 1 (February, 1913). Octavo of 179 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, $8.00; Cloth, $12.00.

The first number of the second volume of these valuable and interesting clinical reports is indicative of the good things that are in store for the reader during the coming year. The value of this number is increased by an address and operation by Mr. W. Arbuthnot Lane of London on the Open Treatment of Fractures. This issue also contains an address on Medicolegal Relations of the Physician and Patient by Dr. W. C. Woodward. The remainder of the work is devoted to Dr. Murphy's clinics and contains the report of the diagnosis and operation in laminectomy, hour-glass stomach, cerebral adhesions, acute appendicitis and cases of joint and bone surgery. The comments of Dr. Murphy are alone worth the cost of the volume and in addition one receives a clinical report of the treatment of each patient. After reading the volume there is but one regret and that is that two months must elapse before the receipt of the succeeding number.

Golden Rules in Gynecology. Aphorisms, Observations and Precepts on the Proper Diagnosis and Treatment of Diseases of Women. By George B. Norberg, M.D., Professor of Diseases of Women and Gynecology, University Medical College; Gynecologist Kansas City General Hospital; Fellow and ex-President Kansas City Academy of Medicine. 253 pages, octavo. C. V. Mosby Company, St. Louis.

This number of the Golden Rule Series is of merit and value. It has a distinct field of usefulness. The

purpose of the volume is to give its readers those methods in gynecologic diagnosis and treatment, the observance of which is known to produce the best results. Chapters are devoted to: General consideration in Diagnosis and Treatment; Diseases of the Vulva; Diseases of the Vagina; Diseases of the Uterus; Diseases of the Tubes and Ovaries; Menstruation and Its Disorders; Diseases of the Urethra; and Diseases of the Bladder.

The literature in gynecology has been fully covered and what the author deems as the best method of procedure in various conditions have been incorporated in this volume. He has observed a constant effort to make short, emphatic and convincing statements which are of practical value.

AN ATLAS ON DIFFERENTIAL DIAGNOSIS OF THE NERVOUS SYSTEM. Analytical, Semeiological and Neurological Charts, by Henry Hun, M.D., Professor of Diseases of the Nervous System in Albany Medical College; Member of the Association of American Physicians; the American Neurological Association, etc., Author of "A Guide for American Medical Students in Europe," "Syllabus of a Course of Lectures on Diseases of the Nervous System," etc. The Southworth Company, Publishers, Troy, N. Y., 1913.

Let no one get the idea that this book is a treatise on the Nervous System, or on the Diseases of the Nervous System—it is nothing of the kind. It is just what its title claims it to be—a Differential Diagnosis of the Diseases of the Nervous System. It makes the diagnosis so plain, so clear, so simple, that aided by it, and following the simple system so lucidly explained, there is no reason why any intelligent physician competent to practice his art, and capable of interpreting and eliciting symptoms should have any difficulty of an unsurmountable nature in arriving at accurate diagnoses, even in seemingly obscure cases. Further, the plan is so comprehensive, accurate, simple and interesting as to substitute in the mind of the student or practitioner a fascination for this branch of work, in place of the dislike and aversion so prevalent in the professional mind to-day. When the teachings of this book are once seen and understood, the handling of nervous diseases will cease to be the bugbear it has formerly been.

ORGANIC AND FUNCTIONAL NERVOUS DISEASES. A textbook of neurology by M. Allen Starr, M.D., Ph.D., LL.D., Sc.D.; Professor of Neurology, College of Physicians and Surgeons, Medical Department, Columbia University, New York; Consulting Neurologist to the Presbyterian Hospital and the St. Mary's Free Hospital for Children, New York. Ex-President American Neurological Association and of the New York Neurological Society; Corresponding Member of the Societe De Neurologie, and of the society De Psychiatrie De Paris; of the Neurological Section of the Royal Society of Medicine, London, and of the Gesellschaft Deutscher Nervenarzte; Author of "Familiar Forms of Nervous Diseases" and "Atlas of Nerve Cells." Fourth Edition. Thoroughly revised; 969 pages, with 323 engravings and 30 plates in colors. Lea & Febiger, New York and Philadelphia.

The author and publishers offer this thoroughly revised fourth edition of this standard work to the profession. The aspects of neurology, the method of examination of the patient and the principles of diagnosis have been brought together in the first part of the book. The various symptoms of nervous affections are well described and analyzed. The practical anatomy and physiological function of the nervous system are concisely set forth.

The second part which treats of the organic nervous diseases has been added to by the additions that have been made in recent years to our knowledge in regard to poliomyelitis, brain tumors, pellagra and syphilis.

In the third part the functional diseases are fully presented and the space allotted to this department of the work has been doubled. Chapters have also been added on headaches, and on disorders of sleep.

The fourth part covers the diseases of the sympathetic nervous system and chapters added on symmetrical gangrene and angioneurotic edema. Trophic symptoms occurring in nervous diseases are also presented.

While the extensive literature of neurology has been well and carefully sifted by the author and references are given on important articles, the author has utilized his personal observations and experience in the presentation of each subject.

As nervous diseases lie on the borderline between medicine and surgery and in consideration of the brilliant achievements that have recently been made in surgical treatment of certain nervous diseases, the author has caused this work to assume an additional value by his consideration of the surgical measures employed in the treatment and cure of these nervous affections.

This work is commended to the student and the practitioner as a guide in the recognition and treatment of nervous diseases.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Large Octavo of 1060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $8.00, net; Half Morocco, $9.50.

This valuable work has the charm of originality and freshness totally lacking in so many books. The illustrations, and this book is profusely illustrated, are mostly photographic, but few of the old stereotype cuts used in common by many authors, are found in this work. The text is clear, readable and to the point. A feature is the large number of suggestions, in notes and descriptive text, giving methods and means of treatment, and common sense handling of the numerous ailments and affections of the pregnant or lying-in woman. More good hints are encountered in this book than are usually found in such works.

To Pelvimetry is devoted a chapter replete with illustrations and descriptive methods.

In normal labor, the advance of the head, the dilatation of the perineum, the delivery of the shoulders, control of the uterine contractions, etc., are beautifully illustrated and described, as is also the third stage, or delivery of placenta. Eclampsia and extra-uterine pregnancy receive excellent consideration, in fact all complications, placenta praevia, twins, neoplasms, diseases of ovum and fetal envelopes, monsters, etc., are illustrated from actual cases and beautifully described in the text. Much attention is given to labor in cases of contracted pelves. The consideration of lacerations and their immediate repair is closely followed by that of postpartum hemorrhage, every step for the control of which is shown by illuminating drawings.

Syncope and sudden death, accident to the child, with illustrations of methods of combating asphyxia neonatorum follows.

But it is by his handling of puerpereal infections that the author has shown that despite all our efforts, infection does sometimes occur. Illustrations of the streptococci and other germs in the tissue, clearly shows this. His treatment is rational, being neither

radical nor conservative. Part 3. Operative Obstetrics, embraces all conditions from simple application of forceps to the most complicated cesarean section, with illustrations of technic and complete descriptive text.

The practicability of this book stands out on every page. The student or practitioner will find in it what he wants, either for academic or practical application.

New and Nonofficial Remedies

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Hediosit is the lactone or inner anhydride, $C_{17}H_{12}N_7$, of alpha-glucoheptonic acid, $CH_2OH.(CHOH)_5COOH$. It is an odorless powder having a sweet taste and is readily soluble in water. When given to diabetic patients hediosit is said not to increase the amount of glucose in the urine. It is claimed to have a food value equal to the same amount of glucose. It is said to be useful as a sweetener of the food for diabetic patients. Farbwerke-Hoechst Company, New York (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

Isatophan is methoxy-atophan, 8-methoxy-2-phenylquinolin-4-carboxylic acid, $CH_3O.C_7H_4N.C_6H_5.COOH.8:2:4$. It is a powder insoluble in water, tasteless and has a slight odor. Its actions, uses and dosage are the same as for atophan. It is also sold in the form of Isatophan tablets, each containing 0.5 gm. isatophan. Schering & Glatz (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

Meningococcus Vaccine contains in each Cc. about 1,000 million killed meningococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

Staphylococcus Pyogenes Aureus Vaccine is marketed in two strengths: 1. Containing in each Cc. about 300 million Staphylococcus pyogenes aureus. 2. Containing in each Cc. about 600 million Staphylococcus pyogenes aureus. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

Staphylococcus Pyogenes Albus and Aureus Vaccine contains in one Cc. Staphylococcus pyogenes albus and aureus each 600 million. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

Pneumococcus Vaccine is marketed in two forms: 1. Each Cc. contains about 40 million killed pneumococci. 2. Each Cc. contains about 100 million killed pneumococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

The Emetic Action of Digitalis.—Having previously shown that the emetic action or "gastric disturbance" of digitalis is produced by action on the vomiting center in the medulla and a property of digitalis itself, Hatcher and Eggleston have now studied the relation of the toxic dose to the emetic dose in a large number of digitalis drugs and preparations. The results will require a revision of many statements generally accepted by medical authorities. They show that the claims made for the proprietary preparations as to freedom from "gastric" effect, i. e., emetic action, are entirely without foundation. The investigators conclude: We have no means at present of securing the cardiac actions of the digitalis bodies without subjecting the vomiting center to the influence of these agents at the same time, and there is no advantage in substituting one mode of administration, or one member of the group, for another, and the employment of opium to prevent the gastro-intestinal symptoms of the digitalis bodies in ordinary cases masks the appearance of toxic symptoms which should serve as a signal for the reduction of the dose. Our results certainly lend no support whatever to the claims made that digalen, digipuratum, digitalysatum or the fat-free tincture of digitalis is in any way less actively nauseant or emetic in proportion to its cardiac activity than any of the better known and less expensive galenical preparations of digitalis and strophanthus (*Jour. A. M. A.*, Feb. 15, 1913, p. 499).

Maignen Pulv.—The powder is advertised by J. P. Maignen, Philadelphia. It is said to be valuable for the treatment of a long list of diseases and for application in various ways to lesions of the skin and subcutaneous tissues and to the various mucous membranes of the body. The circular states that its germicidal power is 3.75 times as great as that of phenol. Examination in the A. M. A. Chemical Laboratory showed the powder to be apparently a mixture, consisting largely of calcium oxid or hydroxid and sodium carbonate, which on treatment with water results in a mixture containing calcium carbonate and sodium hydroxid. While it is known that strong solutions of alkalies are germicidal, it is also well known that such solutions cannot be used in concentrations which possess any activity. Further, when taken internally as recommended, the alkali will be neutralized by the hydrochloric acid of the stomach. The claims therefore are evidently absurd and not deserving of consideration (*Jour. A. M. A.*, Feb. 15, 1913, p. 537).

Formaldehyd Dermatitis.—W. E. Morgan reports a severe dermatitis caused by the use of alcohol denatured with formaldehyd. So many members of the medical profession have been invalidated physically, incapacitated for professional work, deprived of livelihood and rendered nervous wrecks by this peculiarly subtle and all-pervading vaporous poison that it should be relegated, writes Dr. Morgan, to the uses of the undertaker and pathologist only and then used with extreme care. If used for fumigation, the room and all its contents should be thoroughly aired for at least forty-eight hours (*Jour. A. M. A.*, Feb. 22, 1913, p. 590).

Dioradin and Dr. Bernheim.—Recently the Council on Pharmacy and Chemistry rejected Dioradin, largely because the claims of its chief promoter, Dr. Bernheim, were questioned. In an interesting lawsuit light has been thrown on the methods of the promoters of Dioradin. For four years Dr. Louis Dieupart was head physician of the dispensary for the tuberculous

established at Saint-Denis, at the head of which is Dr. Samuel Bernheim. Bernheim discharged Dieupart for refusal to use Dioradin. Dieupart protested, on the ground of the inefficacy of Dioradin. At the trial he testified that Dr. Bernheim received a commission on all Dioradin used at the Saint-Denis dispensary (*Jour. A. M. A.*, Feb. 22, 1913, p. 608).

"CLINICAL REPORTS."—The sheafs of uncritical "clinical reports" which exploiters of utterly worthless "ethical" proprietaries have furnished in support of the medicinal virtues of their nostrums show that the "after this, therefore because of this" style of reasoning is not confined to the laity in the judgment of medicines but is also applied by many physicians. Many doctors who, in standing up for their pet proprietary, take the attitude, so ably described by George Eliot, of those persons who are distrustful of scientific methods. They will grudgingly admit that while, as a general thing, two sides of a triangle are together greater than the third side, yet after all we must be careful, as it is easy to carry mathematical reasoning too far (*Jour. A. M. A.*, March 1, 1913, p. 674).

PA-PAY-ANS (BELL).—Bell & Co. (Inc.) are trying to boost a preparation of theirs, Pa-pay-ans (Bell), advertised to be a "sure-cure" for acute indigestion. This is a mixture consisting essentially of sodium bicarbonate, charcoal and ginger, sweetened with saccharin and flavored with oil of wintergreen. They publish testimonials from physicians—not giving the names—and when asked for names they replied: " . . . in fairness to the men who write us we must withhold their names. No one of any standing in the profession would allow us to publish his name. . . ." Bell & Co. are closely associated with the L. D. Johns Co., a pseudomedical concern that obtains its capital by selling stock to physicians who are not above going into that kind of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

THE UNITED DOCTORS.—Advertising quacks constitute a menace almost equal to that of the "patent-medicine" fakers. By their unscrupulous methods and fake schemes people are led to patronize these quacks, to the detriment of their health. The "United Doctors" is an organization of this kind, practically owned and controlled by one man. Offices are established in large towns and are operated until the public is milked dry. Their scheme is to advertise a "wonderful" system of treatment by which they claim to cure any disease from eczema to paralysis. Newspapers should be censured for accepting advertising matter of this kind, for when the newspapers no longer carry such fakes, concerns like the "United Doctors" will be forced out of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

THE FALLACY OF HYPOPHOSPHITES.—Hypophosphites have been recommended especially in pulmonary tuberculosis with the belief that the phosphorus was of special value in this disease, and that the hypophosphite was the best form in which to administer phosphorus. There is no evidence to show that hypophosphites are utilized by the system, but instead it appears that they are excreted unchanged. While thus the hypophosphites do not furnish phosphorus to the body it is possible that they might have some direct action of their own on the course of the disease, but the clinical evidence for this is very slight. Altogether the hypophosphites with their many unscientific combinations described in the Pharmacopoeia and the National Formulary could well be eliminated from our materia medica (*Jour. A. M. A.*, March 8, 1913, p. 747).

ANTIMERISTEM-SCHMIDT.—Antimeristem-Schmidt is a preparation claimed to be useful in the treatment of inoperable cancer and as a supplementary treatment after operation for cancer. The treatment is founded on a theory advanced by Dr. O. Schmidt that the cause of cancer is found in a fungus, *Mucor racemosus*, which, Schmidt at first asserted, carried a protozoon which he regarded as the real cause of the disease. The "serum" or rather the vaccine, is prepared from cultures from this fungus. While Schmidt claims that he has been able to produce cancer by means of the organism, scientific research has not verified his claims. Extensive clinical trials have shown the treatment to be without effect (*Jour. A. M. A.*, March 8, 1913, p. 766).

PERTUSSIN.—Pertussin is a proprietary whooping-cough remedy manufactured by the Kommandanten Apotheke, Berlin. A Physician's sample of this preparation sent out by Lehn & Fink bears a label on which appears the following: "100 parts Pertussin contains: 1-2 Ol. Thymi, et Thymol, 21 1-2 Ext. Thymi 'Taeschner,' 50 Saccharum, 2 Glycerinum, 6 1-4 Alcohol, 19¾ Aqua Destillata." Pertussin belongs to that class of vegetable preparations which, since they contain no distinctive principle, are difficult of analysis —particularly as concerns the "joker" in the formula, in this case "Ol. Thymi, et Thymol" and "Ext. Thymi 'Taeschner' "—hence there has been much dispute as to the composition of this nostrum. In general, it appears that whatever virtues it has are due to some preparation of common thyme (*Jour. A. M. A.*, March 8, 1913, p. 766).

PASADYNE.—According to the manufacturer Pasadyne is a tincture of passion-flower. Formerly this nostrum was sold under the title "Daniel's Concentrated Tincture of Passiflora Incarnata." While the manufacturer claims marvelous virtues for the preparation, passiflora (passion-flower) is now generally recognized as being of little if any value. The Council on Pharmacy and Chemistry has refused recognition both to the drug passion-flower and to the proprietary preparation of Daniel—the first because its value has not been established and the second, because of extravagant and unwarranted therapeutic claims (*Jour. A. M. A.*, March 8, 1913, p. 766).

BIOSOL.—H. Hille, once of Heidelberg, now of Oak Park, Ill., has reached the conclusion that mineral starvation is the cause of all diseases. He claims to have found a remedy and calls it Biosol. Biosol is an indescribable mixture of alcohol, carbohydrates, and various mineral bodies—ranging all the way from sodium, potassium, calcium and magnesium to silicon, copper, uranium and thorium. It is said to be a valuable food as well as medicine. A dose of this food might keep a rabbit alive for several hours, and a man who could stand the expense and escape death from delirium tremens might live on three quarts of the mixture per day. Fortunately human beings have little occasion to fear mineral starvation and may obviate whatever danger there may be by a drink of milk (*Jour. A. M. A.*, March 8, 1913, p. 767).

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, MAY, 1913 No. 5

Original Articles

THE COMPLEMENT FIXATION TEST IN THE DIAGNOSIS OF GONORRHEA *

ROBERT GOLDSBOROUGH OWEN, A.M., M.D.
AND
HENRY SNURE, M.D.
DETROIT

DEFINITION, PRINCIPLES AND TECHNIC

An antigen or antibody generator is any substance whose introduction into the animal body leads to the production of antibodies or amboceptors as they are often called. A familiar example is the production of antitoxin (antibodies) in the blood of horses by the injection of diphtheria germs or toxin. The antibodies thus produced by natural (disease) or artificial infection are specific; that is, the diphtheria bacillus produces diphtheritic antibodies but does not produce antibodies of, say, the tetanus type. These antibodies, in general, are found only in animals infected or injected, as the case may be, with the corresponding antigen. Antibodies are thermostabile; that is, they are not destroyed by heating to 56 C. for a half hour.

Complement, on the other hand, is a substance normally present in all blood-sera though varying greatly in strength and amount in different species and is thermolabile or destroyed by heating to 56 C. Serum whose complement has been thus removed is called inactivated serum. Any antigen has an affinity for its corresponding antibody and will combine with it in the presence of complement.

By complement fixation is meant the phenomenon which occurs when a serum containing antibodies is brought in contact with the corresponding antigen in the presence of free complement. When this occurs the complement present is consumed in binding the antigen and antibody together, hence the terms "Complement Fixation," "Complement Deviation," or "Complement Binding." Complement, unfortunately, cannot be measured by any simple method and it is necessary to employ a biological procedure to determine whether or not it has been bound. The method used is known as an hemolytic system, and the following charts show the development and use of the method. Charts 1, 2 and 3 explain the method of preparing the material used in the hemolytic system, and it will be noted that this system is itself an antigen-antibody reaction where the red blood-cells as antigen lead to the production of antibodies in the injected rabbit. The antibodies thus produced are called hemolysins since they will hemolyze or dissolve a suspension of their corresponding cells, provided free complement is present.

In order to always have a uniform and exact amount of complement in our tests, we destroy by heat the complement normally present in the blood of the injected rabbit, and in the specimen of blood to be tested, and add a definite and predetermined amount from a guinea-pig. The reactions which occur when complement is present or absent are shown in Chart 4. Here again we see that antigen and antibody can combine only in the presence of free complement.

In the above explanations we have considered the sheep cells as antigen and the hemolysins as the antibodies produced by their injection. Now, remembering that an antigen is any body which generates amboceptors, let us consider the case of specific gonorrheal infections.

GONORRHEAL INFECTIONS

Here the gonococcus is the antigen and under proper conditions, to be discussed later, leads to the production of gonorrheal antibodies in the blood of an affected individual. If then, an antigen made from cultures of gonococci be brought in contact with serum containing gonor-

*From the Research Department of the Detroit Clinical Laboratory.

rheal antibodies in the presence of complement, the two will combine and in so doing will use up the complement. Then when sheep's blood and hemolytic serum are later added there will be no hemolysis since there is no free complement left to complete the second combination of antigen (sheep cells) and antibody (hemolysins).

In case the serum does not contain any gonorrheal antibodies the complement is not consumed in carrying out the first combination of antigen (gonococci) and antibody (gonorrheal), and is therefore free to complete the union of antigen (sheep cells) and antibody (hemolysins). There is consequently an hemolysis of the sheep cells and the reaction is said to be negative.

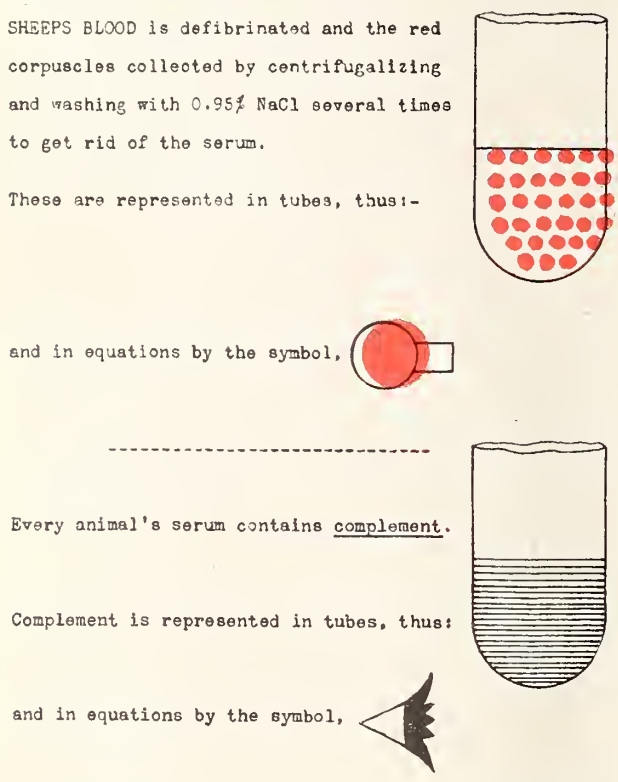


Chart 1.

The reactions which occur in the case of positive and negative sera are illustrated in Charts 5 and 6.

The technic is essentially the same as that of the Wassermann test except that an antigen made from all strains of gonococci, "at large or in captivity on this continent," is used in place of the organ extract antigen of the Wassermann reaction. The antigen that we have employed was very kindly put at our disposal by Parke, Davis & Co., and we have found it eminently satisfactory as have other investigators who have employed it. Our hemolytic serum we obtained from the same firm using the sheep's cell system. I have purposely omitted the exact details of the method, which are of interest chiefly to the serologist. Known positive and negative bloods should always be run as controls and we have always made use of human sera for such as we have found that the commercial antigonococcus serum is not suitable since it is *per se* anticomplementary, that is, it tends to prevent hemolysis even when no antigen is present.

HISTORICAL

The method of complement fixation was developed by Bordet and Gengou in 1901, and has been very extensively applied in the identification of various antigens and amboceptors. Wassermann and Brück[1] first employed the method in the detection of typhoid bacilli and antibodies in 1905, and in the following year Wassermann[2] in collaboration with Neisser and Brück proved the feasibility of detecting syphilis by this method, using a syphilitic organ extract as antigen. Muller and Oppenheim,[3] in 1906, were the

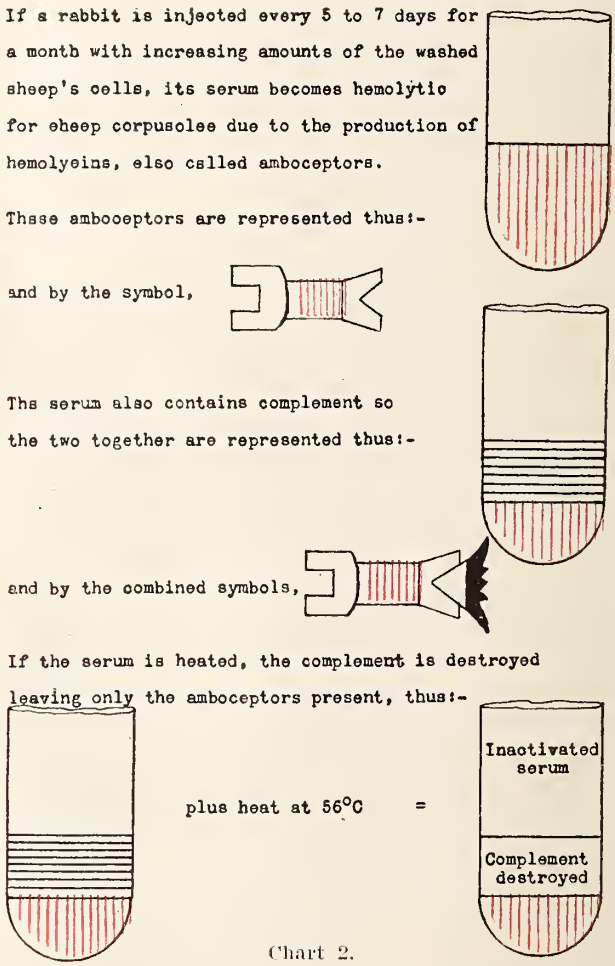


Chart 2.

1. Wassermann and Brück: Med. Klin., 1905, i, 1409.
2. Wassermann, Neisser and Brück: Deutsch. med. Wchnschr., 1906, xxxii, 745.
3. Müller and Oppenheim: Wien. klin. Wchnschr., 1906, xix, 894.

first investigators to apply the method in gonorrheal conditions. They obtained a positive reaction in one case of gonorrheal arthritis but failed to get positive results in several other cases clinically gonorrheal in nature. In the same year Brück[4] confirmed this work but succeeded in getting positive reactions in only five out of eight cases. Meakins,[5] in 1907, reported five cases with a positive result in four of them. In the same year Wollstein,[6] Vannod[7] and Teague and Torrey,[8] published the results of their clinical and experimental studies.

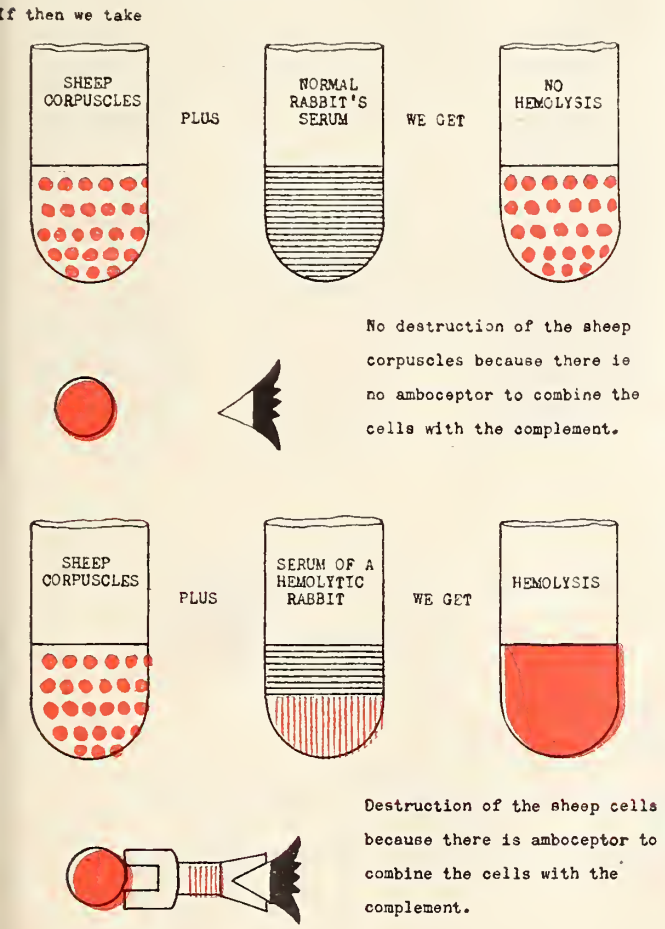


Chart 3.

The work of Teague and Torrey[8] was especially enlightening as they showed that different strains of gonococci differed greatly in their ability to fix complement in the presence of different specimens of gonorrheal serum. Thus strain "A" readily fixed complement in the presence of serum from an animal injected with this strain, but had little or no power of so doing in the presence of serum from an animal injected with some other strain. They therefore advocated testing a blood against as many separate strains as possible. While thus explaining the many negative results obtained by earlier workers the separate testing of bloods against many strains of gonococci would render the test far too cumbersome for clinical work.

The next great advance in the application of complement fixation to the diagnosis of gonorrheal conditions we owe to Schwartz and McNeil[9] who proved:

1. That if only one strain of gonococci were used in making the antigen many positive sera would not react.

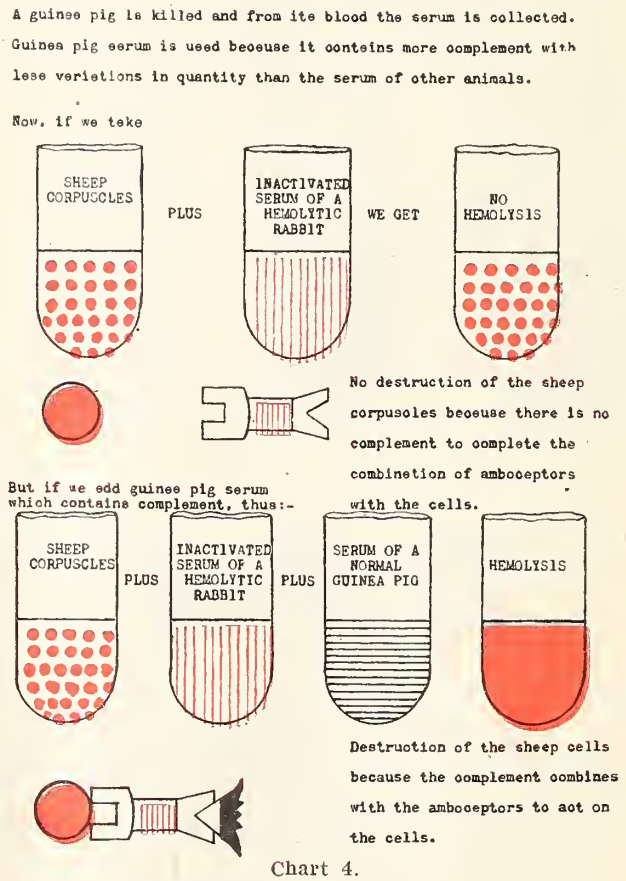


Chart 4.

2. That an antigen made from many strains will fix complement where a single strain antigen does not.

3. That such a polyvalent antigen will fix complement whenever any of its component strains do so.

It has been found that an antigen made from ten to twelve strains will serve all practical clinical purposes. Gradwohl[10] mentions the case of a man who contracted gonorrhea in Ceylon and whose blood gave a strongly positive reaction when tested against the "home grown" antigen. As mentioned above, the failure of the earlier workers to get positive results in cases which should have given them was due to the use of a single strain antigen.

4. Brück: Deutsch. med. Wchnschr., 1906, xxxii, 945.
5. Meakins: Bull. Johns Hopkins Hosp., 1907, xviii, 255.
6. Wollstein: Jour. Exper. Med., 1907, ix, 588.
7. Vannod: Centralbl. f. Bakteriol., 1907, xliv, 10 and 110.
8. Teague and Torrey: Jour. Med. Research, 1907, xvii, 223.
9. Schwartz and McNeil: Am. Jour. Med. Sc., 1911, cxli, 693.
10. Gradwohl: Am. Jour. Derm. and Gen.-Urin Dis., June, 1912, 294.

Since their first paper Schwartz and McNeil[9] have published two additional communications, one[11] refering to the use of the test in arthritic conditions, and the second[12] reporting the results of their work to date. Additional reports by Swinburne[13] whose laboratory tests were performed by Schwartz and McNeil, Schmidt,[14] Keyes,[15] Smith,[16] O'Neil,[17] Gardner and Clowes,[18] Rockwood[19] and Gradwohl[10] have but served to emphasize the clinical value of this test, whose results are fully as accurate as those of the Wassermann reaction and in many respects more so.

VALUE OF POSITIVE AND NEGATIVE REACTIONS

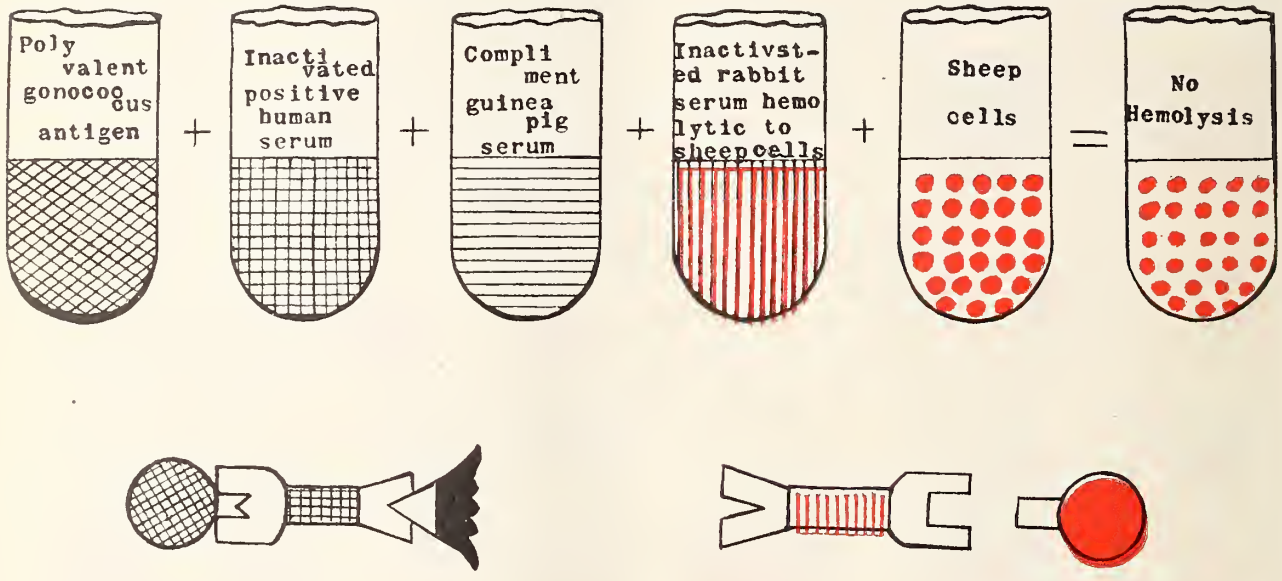
The reaction is absolutely specific for gonorrhea. A good positive reaction has never been found in a non-gonorrheal subject. Flexner's meningitis serum will give positive reactions according to Schwartz and McNeil, but when the reaction was carried out with specimens of blood from meningitis cases uniformly negative results were obtained.

The significance of a positive reaction has been well expressed by Schwartz and McNeil as follows: "A positive reaction denotes the presence or recent activity in the body of a focus of living gonococci."

Since, however, the reaction is dependent on the presence of gonorrheal antibodies, a positive reaction cannot be expected until sufficient time has elapsed for their development. In general, a period of from three to four weeks, after the appearance of the discharge, must elapse before the test becomes positive. Certain cases undoubtedly become positive even earlier, but the above represents the average period of development of a positive reaction.

Cases which remain strictly localized in the anterior urethra or in the vagina of women do not become positive at all. Evidently then some involvement of the deeper structures is necessary to the development of the antibodies concerned. Except in the case of vulvovaginitis in children, after three or four weeks, practically all cases have some involvement of the deeper structures with the production of a positive reaction.

It must be borne in mind that a negative reaction does not have the same value as a positive one. This fact has also been fully demonstrated in the case of the Wassermann reaction. As compared with the Wassermann, however, more emphasis can be placed on a negative gonorrheal reaction since there is none of the fibrous tissue production in gonorrhea which characterizes syphilis, and which tends to wall off affected areas



POSITIVE GONORRHOEAL COMPLEMENT FIXATION TEST.

There is no hemolysis because all the complement is consumed in binding the gonorrhoeal antibodies and antigen, leaving none to complete the combination for destruction of the sheep cells.

Chart 5.

11. Schwartz and McNeil: Am. Jour. Med. Sc., 1912, cxliv, 369.
12. Schwartz and McNeil: Am. Jour. Med. Sc., 1912, cxliv, 815.
13. Swinburne: Tr. Am. Urolog. Assn., 1911, v, 21.
14. Schmidt: Tr. Am. Urolog. Assn., 1911, v, 30.
15. Keyes: Tr. Am. Urolog. Assn., 1911, v, 37.
16. Smith: Lancet-Clinic, 1912, cviii, 124.
17. O'Neil: Boston Med. and Surg. Jour., 1912, clxvii, 464.
18. Gardner and Clowes: New York Med. Jour., 1912, xcvi, 734.
19. Rockwood: Cleveland Med. Jour., 1913, xii, 1.

with a lessened toxin production and consequent decrease or absence of antibody production.

A single injection of salvarsan, or a short course of mercury can temporarily convert a positive Wassermann into a negative one, but in gonorrhea, on the other hand, once a positive reaction has developed it tends to persist as long as any living gonococci exist in the body.

Torrey[20] has shown in experimental animals that antibodies are eliminated very rapidly, there being an appreciable decrease within ten days, with practically complete elimination in fifty. Clinically cured cases of gonorrhea usually become negative in five to eight weeks after treatment has been stopped, provided, of course, that no organisms still persist.

If then a positive reaction is found present after such an interval has elapsed it indicates the continued existence of a focus of infection.

There is one class of cases in which the use of this test is especially valuable, namely, old cases giving a history of gonorrhea several years previously or even of more recent date, such as cases of postgonorrheal urethritis, where there is a slight but persistent discharge, but where no gonococci can be demonstrated microscopically. Many such cases are promptly subjected to irrigations, injections, etc., with the idea of destroying gonococci when the application of a complement fixation test would show that the gonorrheal element was entirely eliminated and that what remained was simply a non-gonorrheal mucous discharge.

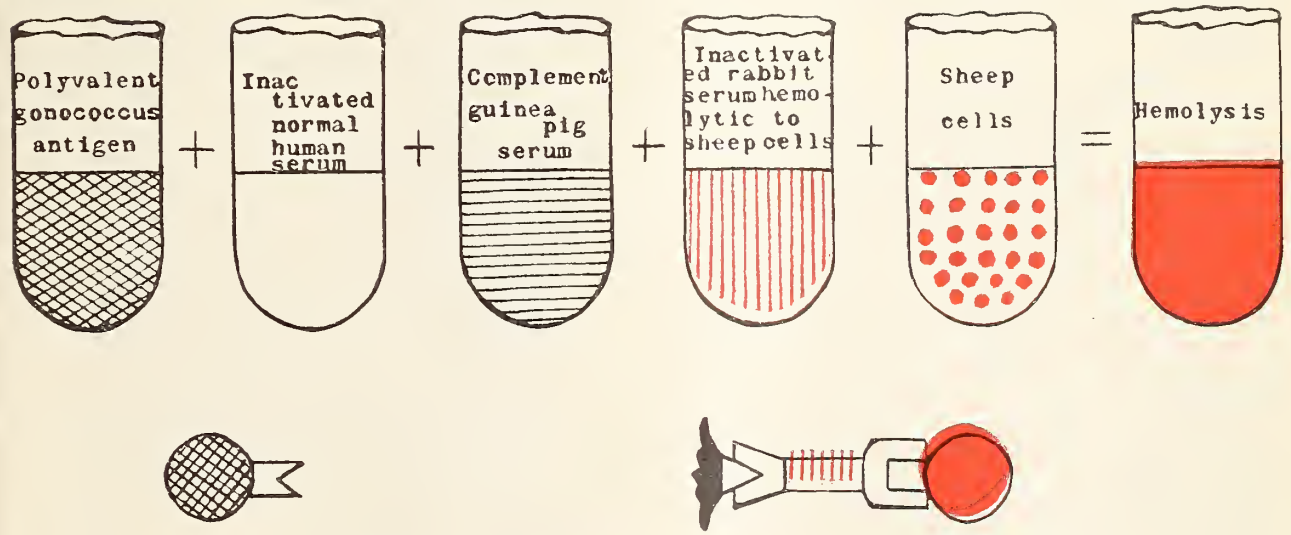
COMPLEMENT FIXATION VERSUS STAINING AND CULTURAL METHODS

In the acute stages of the disease the demonstration of the organism by stain and culture is comparatively easy. Their detection in chronic cases is at all times difficult and often impossible. This applies particularly to women where the luxuriant flora of the genital tract completely masks the few gonococci which may be present. Then too, many women object strenuously to the procedure requisite for such an investigation. Fortunately these chronic cases are just the ones giving the highest percentage of positive results. Where the organisms are readily detected by the microscope the blood test can, of course, be dispensed with.

Many patients presenting themselves with various joint conditions will give a gonorrheal history and the question at once arises as to whether the ailment is indeed gonorrheal in nature. Obviously the demonstration of the organisms is practically impossible in most cases, while the application of complement fixation is simple and gives very accurate results.

EFFECTS OF VACCINES

Cases which have received gonorrheal vaccines generally give positive reactions. We have tested



NEGATIVE GONORRHOEAL COMPLEMENT FIXATION TEST.

In normal human serum there are no gonorrhoeal antibodies to bind the guinea pig complement to the antigen, so the compliment is free to complete the second combination, that of the sheep cells and hemolytic serum, with a resulting hemolysis of the cells.

Chart 6.

20. Torrey: Jour. Med. Research, 1910, xxii, 95.

three such and all gave positive results. This has been the usual finding: Keyes[15] reported two cases thus treated which failed to give positive results. Rockwood[19] likewise failed to get results in five cases out of eighteen. These results may have been due to the use of inert vaccine, or perhaps to the fact that sufficient time had not elapsed between the administration of the vaccine and the performance of the reaction. That some of the commercial vaccines are practically inert one of us observed several years ago when testing the effect of typhoid vaccines. Repeated injections failed to produce a positive Widal reaction until another vaccine was employed whose application was shortly followed by a positive reaction.

Since the application of properly prepared gonorrheal vaccines is usually followed by the production of gonorrheal antibodies we have a rational basis for their use and an explanation of their clinical value. Although they have proved of doubtful value in acute urethritis, still we feel that their use is justified in such conditions, as the antibodies thus generated should be of value in preventing the complications so often developing during the course of an attack of gonorrhea. Since the antibodies are not developed in the early stages of an acute urethritis the body has no protection against an extension of the infection, and their stimulation by vaccines certainly seems a logical procedure.

Our series comprises 100 cases, about one-half of whom gave a gonorrheal history or had symptoms of the disease. Where possible a search for the gonococcus was made, but as we did not see all of the patients personally, this was not always possible.

We also made the test on a number of blood-specimens submitted for Wassermann reactions. The majority of them either denied any history of gonorrhea or claimed that they had been free from all symptoms for years. The few positive results obtained in this class of cases will be taken up later. In no case, however, did we find a positive reaction where gonorrhea could be excluded with reasonable certainty.

The following is a tabulation of the 100 cases, with a brief clinical history, and shows the results of the complement fixation test. We have made use of only four terms in expressing the degree of the reaction: thus + + + (strongly positive), + + (positive), + (weakly), — (negative). When the reaction was very weakly positive, or doubtful, we have reported it as negative as we do not feel that much importance should be attached to such results.

TABLE 1

Case No.	History and Clinical Condition	Blood Test
1	Acute gonorrhea 1 month duration, has had several doses of vaccine. Gonococci present	+ + +
2	Chronic relapsing gonorrhea. Has had 8-10 doses of vaccine. Gonococci present	+ + +
3	Gonorrhea 6 years ago. Clinically cured. Now has Influenza	—
4	No gonorrheal history. Has chronic articular rheumatism	—
5	Gonorrhea for past 3 weeks. Now has perineal abscess. Gonococci present	+ + +
6	Gonorrheal arthritis. Urethral discharge contains gonococci	+ + +
7	Gonorrhea 5 months ago. Persistent discharge which contains gonococci	+ + +
8	Gonorrhea 2 months ago. Clinically cured	+
9	Gonorrhea 3 years ago. Never cured. Now has chronic prostatitis with pus in urine	—
10	Gonorrhea 3 years ago. Discharge off and on since. One week ago developed unilateral epididymitis	+ +
11	No gonorrheal history	—
12	No gonorrheal history	—
13	No gonorrheal history	—
14	No gonorrheal history	—
15	Denies venereal exposure. Now has active secondary lues with positive Wassermann reaction	+ + +
16	No gonorrheal history	—
17	No gonorrheal history	—
18	No gonorrheal history. Has positive Wassermann. Latent lues	—
19	No gonorrheal history	—
20	No gonorrheal history	—
21	Gonorrhea 4 months ago. Clinically cured	+
22	Gonorrhea September, 1911. Now has chronic prostatitis. Gonococci not found	—
23	Gonorrhea 7 months ago. Now has chronic ant.-post urethritis. Moderate discharge contains gonococci	+ +
24	Gonorrhea 5 years ago. Second attack two months ago. Has chronic ant.-post. urethritis	+ +
25	Gonorrhea 25 years ago. Second attack one month ago. Gonococci present	+
26	Chronic gonorrhea past three years. Has had ant.-post. urethritis, epididymitis and cystitis. Clinically cured at present	+
27	Gonorrhea one and a half years ago. Still has slight mucoid discharge. Gonococci not found. Clinically cured	—
28	Gonorrhea three years ago. Clinically cured	—
29	No gonorrheal history	—
30	No gonorrheal history	—
31	Gonorrhea in 1907. Lasted until 1908. Then treated for mucoid discharge for one year. Has had two attacks of epididymitis. No discharge now but there is pus in the prostate. No gonococci found	—
32	Gonorrhea three years ago. Second attack five months ago. Clinically cured	—
33	Gonorrhea seven years ago. Second attack one year ago. Clinically cured	—
34	Gonorrhea four to five weeks ago. Gonococci present	+ + +
35	Gonorrhea past three months. Has chronic ant.-post. urethritis	+ +
36	Chronic cervicitis. Gonococci present	+
37	No gonorrheal history. Has tuberculosis of spine (?)	—
38	No gonorrheal history. Has acute iritis	—
39	Denies gonorrhea. Has active secondary lues	+
40	No gonorrheal history. Has acute iritis	—
41	No gonorrheal history	—
42	No gonorrheal history. Is recovering from pneumonia and has evening rise of temperature	—
43	No gonorrheal history	—
44	Gonorrhea five weeks ago. Gonococci present	+ + +
45	No gonorrheal history	—
46	No gonorrheal history	—
47	No gonorrheal history	—
48	No gonorrheal history. Has cirrhosis of liver with ascites	—
49	No gonorrheal history	—
50	No gonorrheal history	—
51	Gonorrhea ten years ago. Second attack eight years ago. Clinically cured	—
52	No gonorrheal history. Has latent lues with positive Wassermann	—
53	Repeated attacks of gonorrhea. Has had ant.-post. urethritis for past three months. Gonococci present	+ + +
54	Gonorrhea three years ago with prostatitis. Prostate still contains pus, but no gonococci found	—
55	Gonorrhea one year ago with epididymitis. No discharge for several months, but patient has been under vaccine treatment last few months	+ +

Case No.	History and Clinical Condition	Blood Test
56	Gonorrhea three years ago. Blood was positive August, 1912, and patient has been under treatment since. Clinically cured....	—
57	Gonorrhea ten years ago, six years ago and one year ago. Present attack began four weeks ago. No discharge at present.....	+++
58	Gonorrhea one year ago. Clinically cured...	—
59	No gonorrheal history	+
60	Chronic cervicitis	+++
61	Gonorrhea one year ago. Clinically cured...	+
62	No gonorrheal history. Secondary lues.....	—
63	Gonorrhea nine times in past eleven years. Last attack six years ago. Now has scanty watery discharge. Gonococci not found...	—
64	Gonorrhea, 1906, July, 1912. Had second attack, December, 1912 Has chronic prostatitis. No gonococci found.....	—
65	Gonorrhea 1906. Has never been cured. Now has prostatitis with very slight discharge. No gonococci found.....	—
66	First attack fifteen years ago. Second attack fourteen years ago. Third attack eleven years ago. Fourth attack November, 1912. Since then has had free discharge, but no gonococci could be found.....	++
67	No gonorrheal history. Latent lues with positive Wassermann	—
68	Gonorrheal salpingitis eight years ago. Ovaries and tubes removed. No present symptoms	—
69	No gonorrheal history	—
70	No gonorrheal history	—
71	No gonorrheal history	—
72	Gonorrhea fourteen months ago. Second attack seven months ago. No treatment for past three weeks. Has very scant watery discharge. No gonococci found....	—
73	Gonorrhea four months ago. Has an occasional morning drop but no gonococci found	—
74	Gonorrhea 1910. Has had chronic prostatitis since. Jan. 1, 1911, was clinically well and no gonococci could be found. Feb. 20, 1913, discharge began which contains numerous gonococci. One week later prostate was markedly involved.....	++
75	Gonorrhea one year ago. Discharge ever since. Now has chronic prostatitis, but no gonococci can be demonstrated.....	++
76	Gonorrhea one year ago. Cured in four months. September, 1912, discharge appeared. Has chronic prostatitis, but no gonococci can be found	++
77	Gonorrhea thirteen years ago. Second attack eleven years ago. Third attack two years ago. Since then has had chronic prostatitis. No gonococci found	++
78	Gonorrhea nineteen years ago. December, 1911 second attack. Since then has had very slight discharge in which no gonococci can be demonstrated. Urine is clear except for an occasional shred. Patient clinically cured	—
79	Gonorrhea three years ago. Second attack in June, 1912. Has had discharge ever since. Gonococci present	+++
80	Acute gonorrheal discharge appeared three weeks ago. Gonococci present.....	+
81	Gonorrhea spring, 1912. First attack two years before that. Now has chronic prostatitis, but no gonococci can be demonstrated	—
82	No gonorrheal history. Congenital lues.....	—
83	No gonorrheal history. Tertiary lues.....	—
84	No gonorrheal history.....	—
85	No gonorrheal history	—
86	Chronic ant.-post. urethritis, Gonococci present	+++
87	No gonorrheal history	—
88	No gonorrheal history	—
89	No gonorrheal history	—
90	No gonorrheal history, secondary lues.....	—
91	No gonorrheal history. Infant six weeks old	—
92	Acute gonorrheal discharge appeared about twenty-three days ago. Gonococci present.	+
93	Gonorrhea, August, 1912. Discharge off and on since. Gonococci present March 1, 1913	+++
94	Gonorrhea seven years ago. No symptoms now. Complains of weak erections.....	—
95	Gonorrhea one month ago. Gonococci present	++
96	Gonorrhea five years ago. No symptoms until five months ago when slight discharge started. Gonococci not found.....	—
97	No gonorrheal history. Has latent lues with positive Wassermann	—
98	No gonorrheal history. Cured luetic	—
99	No gonorrheal history. Cured luetic.....	—
100	No gonorrheal history. Has iritis and chorioiditis	—

In order to get some classification of our cases we have classified them under the following heads: An accurate classification is difficult since many of these cases show more than one symptom, as patients with urethritis, for instance, will also have prostatitis, etc. We have, therefore, classified them according to the most prominent symptom.

1. ANTERIOR URETHRITIS

We did not have any very early cases but the reaction is almost uniformly negative under three weeks.

CHRONIC ANTERIOR URETHRITIS

Case No.	Fixation Test	Gonococci
25	+	present
34	+++	present
44	+++	present
80	+	present
92	+	present
95	++	present

In all six of these cases the discharge has been present over three weeks.

2. CHRONIC ANTEROPOSTERIOR URETHRITIS

Case No.	Fixation Test	Gonococci
7	+++	present
23	++	present
24	++	no exam.
35	++	no exam.
53	+++	present
57	+++	not found
66	++	not found
79	+++	present
86	+++	present
93	+++	present
96	++	not found

Case 57 is of special interest. There has been no discharge for some weeks, and no gonococci can be demonstrated microscopically. The persistence of a strongly positive reaction four weeks after cessation of treatment, however, would point to a continuance of the infection. As this is the forth attack of gonorrhea which the patient has had, we would certainly expect some involvement of the deeper structures and this is most probably what has occurred.

4. PROSTATITIS

Case No.	Fixation Test	Gonococci
9	—	no exam.
22	—	not found
31	—	not found
54	—	not found
64	—	not found
65	—	not found
74	++	present
75	++	not found
77	++	not found
81	—	not found

These were nearly all old cases of several years duration. In most of them, apparently, the gonococci had died out, leaving a secondary infection with some of the common pus organisms as the active factor in maintaining the inflammation. Cases 75 and 77 which were positive were cases of one and two years standing, respectively. Case 74 was of interest: The patient had had gonorrhea in 1910 with chronic prostatitis. He

was examined in January, 1911, and pronounced clinically well. Feb. 20, 1913, discharge containing gonococci appeared following exposure. Feb. 28, 1913, the fixation test was strongly positive. As only one week had elapsed between the appearance of the discharge and the strongly positive fixation test the question arises as to whether this strong positive reaction was due to the new infection, or to a continuation of the old process on which a new infection had been grafted. We think the latter is the correct answer.

5. EPIDIDYMITIS

Case No.	Fixation Test	Gonococci
10	++	no exam.

6. GONORRHEAL ARTHRITIS

Case No.	Fixation Test	Gonococci
6	+++	present

7. NON-GONORRHEAL ARTHRITIS

Case No.	Fixation Test	Gonococci
4	—	no search

This was a case of chronic articular rheumatism of fifteen years standing.

8. CASES TREATED WITH VACCINES

Case No.	Fixation Test	Gonococci
1	+++	present
2	+++	present
55	++	no exam.

The true test of a vaccine would be to administer it to non-gonorrheal cases, but we were unable to find suitable victims. The first two cases would probably have shown a positive reaction without the vaccines. The third was that of a man presumably cured several months ago, but to whom vaccines had continued to be given.

9. CERVICITIS

Case No.	Fixation Test	Gonococci
36	+	present
60	+++	no exam.

Case 60 was that of a woman who denied gonorrhea but who had been under treatment for syphilis, and who complained of a profuse cervical discharge.

10. PERINEAL ABSCESS

Case No.	Fixation Test	Gonococci
5	+++	present

Acute urethritis of three weeks' duration followed by abscess.

11. CLINICALLY CURED

Case No.	Fixation Test	Gonococci
8	+	no exam.
21	+	no exam.
26	+	no exam.
61	+	no exam.
3	—	no exam.
27	—	no exam.
28	—	no exam.
32	—	no exam.
33	—	no exam.
51	—	no exam.
56	—	no exam.
58	—	no exam.
63	—	not found
68	—	no exam.
72	—	not found
73	—	not found
78	—	not found
94	—	not found

Case 8 stopped treatment only a few weeks ago and the weak positive reaction probably represents a fading reaction which will become entirely negative in a few weeks more. The same is true in case 21. Case 26 is one of chronic gonorrhea with prostatitis. Here sufficient time (eight weeks) has elapsed to permit of the complete elimination of any antibodies, hence we must conclude that the patient is still harboring living gonococci. Case 61 has been free from symptoms for several months yet a positive reaction persists indicating continued infection. The negative cases were free from all symptoms except cases 63, 72, 73 and 78. These four showed a slight mucoid discharge in which no gonococci could be found. In a total of eighteen cases clinically cured we find two still positive where ample time has elapsed since treatment to permit of the complete elimination of all antibodies if new ones were not being constantly produced by still living organisms. This percentage of 11.1 accords closely with the results obtained by Schwartz and McNeil who found that 13 per cent of cases clinically cured for at least three months still harbored living gonococci as shown by the fixation test. Gardner and Clowes found about 20 per cent. to be still positive, while Rockwood gives a percentage of 17 as representing the proportion uncured among those free from clinical symptoms.

These figures serve to emphasize the danger of turning loose so-called cured cases without careful microscopic and serological examination, especially the latter, since the danger of infection from these individuals is much greater than is the case with old or latent syphilitics. Since 50 to 75 per cent. of adult males contract gonorrhea and as approximately 10 per cent. of the supposedly cured are still infectious, we can readily understand why it is that such a large percentage (65 per cent.) of gynecological operations are rendered necessary by the ravages of this organism.

With the complement fixation tests for syphilis and gonorrhea now available anyone who has suffered from either of these diseases and enters the field of matrimony without first subjecting himself to the light which these reactions can throw on his fitness does a great injustice to his future partner. Certain states now require a medical certificate before marriage, but such bills

TABLE 2

Clinical Diagnosis	Schwartz and McNeil				Gradwohl				Schmidt				Keyes				O'Neil				Gardner and Clowes				Roekwood				Owen and Snure			
	Pos.		Neg.		Pos.		Neg.		Pos.		Neg.		Pos.		Neg.		Pos.		Neg.		Pos.		Neg.		Pos.		Neg.		Pos.		Neg.	
	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.	No. Cases	Per Cent.
1—Acute gonorrheal urethritis—																																
(a) Duration under 3 weeks	0	0	3	100	0	0	18	100	1	7	13	93									3	43	4	57	0	0	2	100				
(b) Duration uncertain	19	90	2	10																	4	80	1	20	5	62	3	38	6	100	0	0
2—Acute urethritis, gonococci not found	0	0	1	100									0	0	1	100									0	0	2	100				
3—Chronic gonorrheal urethritis—																																
(a) Gonococci present at time of test		*											0	0	3	100	77	64	43	36	20	100	0	0	18	86	3	14	6	100	0	0
(b) Gonococci not found	7	35	16	65					15	46	17	54	5	41	7	59					6	50	6	50	13	72	5	28	3	100	0	0
(c) No examination-stage when gonococci are usually absent	10	32	21	68																	5	83	1	17	5	71	2	29	2	100	0	0
4—Chronic urethritis, history of gonorrhea doubtful																									1	9	10	91				
5—Chronic prostatitis—																																
(a) With gonorrheal history	46	47	52	53	12	80	3	20													9	82	2	18	9	82	2	18	3	30	7	70
(b) Gonorrheal history doubtful	2	18	9	82																					0	0	1	100				
6—Epididymitis—																																
(a) Gonorrheal history	2	67	1	33					5	45	6	55									3	100	0	0	11	61	7	39	1	100	0	0
(b) No gonorrheal history	1	25	3	75																					0	0	1	100				
7—Verumontanum cases—																																
(a) Gonorrheal history	4	19	17	81																	4	80	1	20	1	11	8	89				
(b) No gonorrheal history	1	100	0	0																					1	20	4	80				
8—Clinically cured cases	22	13.2	143	86.8									3	15	15	85					4	21	15	79	6	17	30	83	2	11.1	16	88.9
9—Joint affections—																																
(a) Gonorrheal arthritis	16	94	1	6	3	75	1	25									11	78	3	22	1	100	0	0	2	100	0	0	1	100	0	0
(b) Gonorrheal arthritis doubtful	19	61	12	39					2	40	3	60					3	50	3	50					2	25	6	75				
(c) No gonorrheal arthritis	0	0	49	100													1	20	4	80									0	0	1	100
10—Cases treated with vaccines	10	100	0	0									0	0	2	100									28	85	5	15	3	100	0	0
11—Miscellaneous cases	13	20	50	80					2	5	36	95					11	20	44	80	13	21	48	79	0	0	5	100	3	7	41	93
12—Gynecological cases—																																
(a) Gonococci present or suspected	2	100	0	0																					4	57	3	43				
(b) No signs or history of gonorrhea	0	0	2	100																					0	0	1	100				
13—Seminal vesiculitis	1	25	3	75																												
14—Cervicitis—																																
(a) Gonococci present	9	100	0	0													22	46	26	54	1	100	0	0					2	100	0	0
(b) Gonococci not found	10	77	3	23	3	100	0	0																								
15—Tubo-ovarian cases—																																
(a) Gonorrheal	12	63	7	37	3	75	1	25									13	87	2	13	1	50	1	50								
(b) Non-gonorrheal																	0	0	4	100												
16—Pelvic peritonitis	3	75	1	25													0	0	1	100	1	100	0	0								
17—Gonorrheal abscess	2	100	0	0	1	100	0	0													1	100	0	0					1	100	0	0
18—Vulvo-vaginitis in children	0	0	10	100																												

* Ninety-five to 100 per cent. are positive.

will be of little value unless they make obligatory the application of these tests. One of the chief objections to all such bills has been that they demand a certain amount of exposure on the part of female patients and this objection can be entirely overcome by requiring these tests. There are few people so depraved that they would enter matrimony while suffering with an acute venereal disease and these are practically the only stages which a physical examination would reveal.

12. MISCELLANEOUS CASES

Case No.	Fixation Test	Gonococci
15	+++	no exam.
39	+	no exam.
59	+	no exam.
11	—	no exam.
12	—	no exam.
13	—	no exam.
14	—	no exam.
16	—	no exam.
17	—	no exam.
18	—	no exam.
19	—	no exam.
20	—	no exam.
29	—	no exam.
30	—	no exam.
37	—	no exam.
38	—	no exam.
40	—	no exam.
41	—	no exam.
42	—	no exam.
43	—	no exam.
46	—	no exam.
47	—	no exam.
48	—	no exam.
49	—	no exam.
50	—	no exam.
52	—	no exam.
62	—	no exam.
67	—	no exam.
69	—	no exam.
70	—	no exam.
71	—	no exam.
82	—	no exam.
83	—	no exam.
84	—	no exam.
85	—	no exam.
87	—	no exam.
88	—	no exam.
89	—	no exam.
90	—	no exam.
91	—	no exam.
97	—	no exam.
98	—	no exam.
99	—	no exam.
100	—	no exam.

These forty-four cases all denied any history of gonorrhea and were selected at random from patients presenting themselves for Wassermann tests. Some were clinically and serologically syphilitic, while others represented a variety of morbid conditions. Cases 15 and 39 both denied venereal exposure but showed the lesions and blood-reactions of an active secondary syphilis. Case 59 was that of a woman under recent treatment for lues. Here likewise the possibility of gonorrhea cannot be denied. We thus find that 6.8 per cent. of individuals selected at random show evidence of an active gonorrhea. The figures of other observers run as high as 20 per cent. of positive tests among such cases.

Table 2, on page 255, represents a compilation of all the cases which have been reported to date where a polyvalent antigen was used in the tests. As the different men have classified their cases differently it has been hard to arrange a uniform system of classification. We therefore wish to state that the tabulation does not in all instances follow accurately that of the original reporter.

CONCLUSIONS

1. The complement fixation test gives a very high percentage of positive results when gonococci are present, except in the very acute stage.

2. Complement fixation will often point to the presence of gonococci when they cannot be demonstrated microscopically.

3. A positive reaction has never been found in a non-gonorrheal patient.

4. Cured cases become negative in five to eight weeks. Persistence of a positive reaction beyond this time indicates that living organisms still exist.

5. The test has shown that 10 to 20 per cent. of clinically cured cases are still infectious.

6. Tests performed on a large number of individuals, selected at random without any regard to a gonorrheal history, show an astonishingly large percentage (7 to 20 per cent.) of positive results.

7. All matrimonial candidates should subject themselves to the application of the Wassermann and gonorrheal tests if they have ever had syphilis or gonorrhea.

We wish to express our grateful thanks to Drs. Keane, Muller, Fechheimer, Martin, Jennings and Burke, who so kindly placed their clinical material at our disposal.

THE HEART IN ARTERIOSCLEROSIS*

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Vital statistics tell us that heart disease with its attendant changes in the arteries and kidneys is much more frequent than formerly. Even the public press has taken notice of this fact and exploitations of new methods of treatment for the reduction of increased blood-pressure are not infrequent in the newspapers. It is, therefore, quite fitting that this society should devote an evening to the consideration of a diseased condition that lays low so many of the most successful and valuable members of every community.

Tuberculosis claims its victims chiefly from the early decades of life, leaving behind many visions of unfulfilled promises, while arteriosclerosis terminates the earthly career of many thousands of

*Read before the Kent County Medical Society, Oct. 12, 1912.

men who have borne the heat and burden of the day and whose great achievements make their lives of great importance to a community.

It is a fortunate thing for a tuberculous individual to have an early hemorrhage as it often points the way to a correct diagnosis and proper treatment. I have heard Osler say, "that it is a fortunate thing for a victim of cardiovascular disease to find a little albumin and a few tube casts in his urine for the same reasons."

Unfortunately, however, the early stages of heart disease and hardening of the arteries have few, if any, pathognomonic symptoms and irreparable damage has usually been done when the condition is first discovered.

The specific etiology of tuberculosis is now well known and its final extermination is only a matter of time, and I believe that the more general interest now being taken in the problems of metabolism and the chemical changes taking place within the body will in time determine why premature old age so often attacks the heart and arteries rather than the lungs or the liver.

ETIOLOGY

Numerous causes are mentioned in the books for arteriosclerosis such as (1) hypertension, (2) chronic intoxications such as alcohol, lead and gout, (3) syphilis, (4) overeating, (5) the stress and strain of modern life, (6) overwork of the muscles, and (7) renal disease.

In many instances there seems to be an inherited predisposition to arteriosclerosis, entire families sometimes showing this tendency. I believe, however, that the specific and exciting etiology will become so well worked out and its predisposing symptoms, as recurrent headache, biliousness or dyspepsia, so generally recognized that our efforts will be devoted to preventing the development of arteriosclerosis rather than to stay the progress of an incurable condition after it has become recognized.

Apart from accidental deaths, mankind dies from two great causes: (1) acute or chronic infections; (2) diseases affecting the integrity of the heart and blood-vessels. I am not sure but that in time the latter will also be termed infectious conditions.

The pendulum, however, at the present time in many diseases—as for instance those of the gastro-intestinal tract in infants—has swung from a bacteriologic etiology to a chemical one; I believe that metabolism, or disturbances in the chemical changes taking place in the body, play an important part in the etiology of the disease under consideration.

It is recognized by every one that these diseases are incurable when once established, and that at the present time their specific etiology is but little understood is shown by the fact that such books as Osler's have little to say concerning the prophylactic treatment of arteriosclerosis.

It seems to be recognized that some unknown hidden agency is at work causing these diseases without definite knowledge of which we are unable to prevent their development. A few investigators[1] at the present time are inclined to believe that the specific etiologic factor is a toxin—an amin—formed by intestinal putrefaction of the several amino-acids of normal pancreatic digestion of proteids. If this proves to be true it is of tremendous importance that we should recognize that the prevention of heart disease and hardening of the arteries lies in proper regulation of the diet and habits of life of the individual and that a chemical examination of the urine will do more to determine the presclerotic stage of elevated blood-pressure than any number of physical examinations.

Diseases of the heart, blood-vessels and kidneys are so correlated that it is not possible to take a comprehensive view of the diseases of one without considering the affections of the other. It is often found that the earliest indications of disease in one is found in disturbances of the other. Chronic Bright's disease, for instance, is not essentially a disease of the kidneys alone. It is really a disease of the circulation in which disorders of the heart and blood-vessels play a prominent part. Oftentimes hypertrophy of the heart is the earliest detectable sign of chronic interstitial nephritis. So much so that in every case of cardiac hypertrophy we suspect the possibility of chronic Bright's disease or arteriosclerosis.

The initial condition is often an elevated blood-pressure and fortunate is the man whose case is correctly summed up at this time when proper treatment can prevent the development of secondary lesions which are irremovable. Osler says, "you can have arteriosclerosis without hypertension and hypertension without arteriosclerosis." Early in the disease the tension may be high with a normal arterial wall; therefore, one should always examine carefully to determine whether the vessels are rigid or not. That the pressure may be high without sclerosis was shown by an autopsy I recently saw in the case of a man 50 years old with a very large heart that was dilated and hypertrophied. The valves were normal, liver large and small sclerotic kidneys; no signs of arteriosclerosis were found excepting a small

1. Eustis, Vienna: Tulane University of New Orleans.

patch on the aorta. Although his blood-pressure was over 200, he had practically no arteriosclerosis whatever.

Stoerk says, "you can have a contracted kidney with cardiac hypertrophy, and elevated blood-pressure giving rise to cerebral hemorrhage without noticeable arteriosclerosis." Usually, however, hypertension and arteriosclerosis go together.

The increased resistance to the circulation thus produced, and the loss of elasticity in the coats of the arteries, eventually leads to enlargement of the heart; the finding of a hypertrophied left ventricle is often the first suggestion we have of arteriosclerosis or of a contracted kidney.

PATHOLOGY

Arteriosclerosis is a condition of thickening of the walls of the arteries, making them feel stiff and hard. When the increased tension stretches the arterial walls, they become tortuous as is often seen at the wrist and on the temple.

The changes produced by the disease are most marked in the aorta and are of two varieties: syphilitic and non-syphilitic. In syphilitic arteriosclerosis the atheromatic changes are most marked in the neighborhood of the aortic orifice and become less marked the farther you go from the heart. The ends of the valves may become adherent and the valves themselves much thickened so that insufficiency results with cardiac hypertrophy and dilatation. Syphilis is more apt to lead to valvular disease than simple arteriosclerosis.

The physical signs may resemble those of aortic insufficiency due to endocarditis but in the latter the blood-pressure would not be elevated, whereas in aortic disease, due to arteriosclerosis, the blood-pressure is above normal unless the stage of broken compensation has been reached.

In the non-syphilitic variety of arteriosclerosis the more distant parts of the aorta are sclerosed along with the peripheral arteries of the body. The difference in the location of these two varieties is beautifully illustrated in the coronary artery.

When the disease is due to syphilis the ostea may be entirely closed, while in a case of non-syphilitic arteriosclerosis, which I saw recently, the opening of both coronary arteries were large, but both arteries were stenosed in their course. The ascending and transverse aorta showed but little disease, but the farther down you went and the nearer you reached the peripheral arteries the more pronounced became the sclerosis. Involvement of the coronary arteries may lead to thrombosis and sudden death, fibroid degeneration of the heart muscle and angina pectoris.

In all large and medium-sized vessels arteriosclerosis leads to dilatation especially when the blood-pressure is high, in the smaller arteries it leads to narrowing.

PHYSICAL SIGNS

Where the aorta becomes dilated and tortuous the apex beat may be displaced downward and outward, a condition which is often mistaken for hypertrophy and dilatation of the left heart, whereas the hypertrophy and dilatation is really in the right heart, and is due to pulmonary changes, as in senile emphysema which frequently renders an examination of the heart difficult.

In insufficiency of the aortic valves, due to endocarditis, the second tone is not to be heard and the systolic murmur is best heard over the valves and somewhat to the left; but in insufficiency due to arteriosclerosis the murmur is best heard in various places, especially to the right of the sternum.

Hypertrophy of the left ventricle as a result of the increased resistance to the arterial circulation becomes apparent during life from the strength of the apex beat and its displacement to the left and also from the extension of the area of cardiac dullness to the left.

A wide, strong and heaving apex beat is a sure sign of hypertrophy and dilatation of the left ventricle. Often in nervous people the heart beats rapidly but on putting the hand over the heart it will be found that the beat is light and weak.

In 40 per cent. of adults the apex beat lies normally in the fourth interspace; in 60 per cent. in the fifth, seven to eight centimeters from the middle line, measuring always to the farthest point at the left where you can feel the impulse. The extent of the beat varies. Ordinarily it covers an area about two centimeters square.

Broadening of the apex beat is indicative of dilatation or hypertrophy and dilatation. Increase of the force of the apex beat indicates hypertrophy. Its intensity varies a great deal, depending on the amount of overlapping lung and the thickness and resistance of the thoracic wall. These variations and the fact that the apex beat may lie behind a rib instead of opposite an intercostal space, make it clear why quite healthy persons sometimes show no distinct apex beat.

When the apex beat is not over one and one-half or two fingers in breadth and is well circumscribed it cannot mean dilatation, especially of the left ventricle. In such a case the beat would be broader and not so circumscribed.

Palpation of an apex beat and percussion always make out the size of the heart to be larger

than an *x*-ray picture shows it. The right border of the heart on percussion usually conforms with the Roentgen picture. Not so the left, as Roentgen rays are parallel while percussion is made, as a rule, perpendicular to the chest wall. Hence the apex beat is located 1 to 3 centimeters farther to the left than is indicated by radiography.

It is generally more difficult to determine enlargements of the right heart by percussion than those of the left by reason of the notch in the left lung. The left heart is more accessible to percussion than the right which is covered more completely by lung and by the sternum.

The heart is enlarged both by hypertrophy of its walls and by the dilatation of its cavities. We cannot percuss accurately enough to appreciate 1 or 2 centimeters increase in the heart's size, which is the usual limit of enlargement in hypertrophy alone, nor do we ever in postmortems find a hypertrophy of this degree unless it is accompanied by dilatation. Any enlargement of the heart, therefore, which can be demonstrated by percussion must depend on dilatation of its cavities whether there be coexisting increase in the thickness of the walls or not.

A moderate dilatation of the right ventricle often produces only a dislocation of the left cardiac boundary, while it requires a very considerable dilatation of the right ventricle to increase the area of dullness to the right of the sternum.

Kovacs states, "that when dullness extends one finger's breadth to the right of the sternum it means dilatation of the right ventricle." The position of the apex beat, however, is about as helpful as anything in determining an enlargement of the left ventricle. On auscultation the increased tension in the aortic system is made manifest by accentuation of the second aortic sound.

When, in examining a case, we find a large heart, the mutual relations between increased arterial tension, hypertrophy of the left ventricle, contracted kidney and arteriosclerosis are so close that it is often impossible to tell which is the primary lesion, and from the point of view of treatment this is not at all necessary. The combination of heightened blood-pressure, palpable thickening of the arteries, hypertrophy of the left ventricle and accentuation of the second aortic tone are pathognomonic signs of arteriosclerosis.

The arterial degeneration may be the principal change, or it may be simultaneous with the nephritis, or it may be secondary to a primary affection of the kidneys.

I think it is well for us to always keep in mind that there are two kinds of kidney disease: (1) those with increased blood-pressure and a hypertrophy of the left ventricle, such as occurs in the various forms of chronic Bright's disease. An exception to this rule must be made in tuberculosis in which all cases of nephritis have a low blood-pressure.

There is but one form of contracted kidney where the heart does not hypertrophy and the blood-pressure rise, namely, in tuberculosis. In all other cases the left ventricle hypertrophies, but in the interstitial nephritis of tuberculosis there is no enlargement of the heart.

I recently saw a case of a young man, 24 years of age, who contracted nephritis five years ago. One year later he began to have lung symptoms and now has advanced tuberculosis. His nephritis has continued, the blood-pressure is 120, and there is no enlargement of the heart. The nephritis seemed to be the primary disease and is probably due to the tuberculous toxemia. In many cases of acute nephritis the left ventricle becomes hypertrophied as early as the third week. This, however, does not take place in all cases.

There are probably two causes for the hypertrophy of the heart in nephritis, toxic and mechanical. The resistance to the circulation caused by the contraction and thickening of the arterial walls in combination with the irritation of the walls of the ventricle by toxic substances give rise to a compensatory eccentric hypertrophy. In an ordinary nephritis the blood-pressure begins to rise in from two to four months. When it does not and the case is followed by pulmonary tuberculosis you know that the nephritis was tuberculous from the beginning.

The second class of kidney diseases referred to are those that have no increased arterial tension or enlargement of the heart, such as abscesses of the kidneys, tuberculosis, pyonephrosis, hydronephrosis, etc. This class includes all so-called surgical kidneys.

Surgical kidneys do not have an elevated blood-pressure but are usually accompanied by pus or other abnormal elements in the urine. The two conditions are exemplified in the same case as in that of a man 58 years of age with a blood-pressure of 240. The left ventricle was hypertrophied, the second aortic tone accentuated, and there was a loud systolic thrill to the right of the sternum. The hypertrophy showed that the case was neither one of tuberculosis, nor hypertrophy following endocarditis, so one had to look outside of the heart for the etiology.

There were three things to consider: 1. Simple Atheroma. 2. Aneurysm or dilatation of the aorta. 3. Kidney disease.

What signifies a hypertrophy? It is often an early symptom of atheroma, in which case the

urine is free from albumin. In this case the urine was acid, specific gravity 1.004, no sugar or blood, no casts or epithelium. One-half per cent. bulk albumin was present and numerous leukocytes which indicated inflammation or suppuration somewhere in the urinary tract. Pus is often found in the urine in a surgical kidney. Only chronic interstitial nephritis could account for the blood-pressure. Inasmuch as one often fails to find casts in the urine, for days or weeks at a time in a case of contracted kidney, their absence here did not prevent me from making a diagnosis of chronic interstitial nephritis. The pus in the urine was probably due to a coincident pyelitis.

Another case was that of a man 62 years of age with a big heart and a Corrigan pulse. There was a thrill over the aortic area just following the systole. There was also a loud systolic murmur which might have been due to (1) stenosis (the pulse, however, was not such as would be present in stenosis); (2) aneurysm; (3) dilatation of the aorta. The thrill and the big heart indicated aortic disease with insufficiency. The largest hearts on record are due either to aortic regurgitation or chronic interstitial nephritis. Arteriosclerosis alone gives rise to but a moderate hypertrophy and a moderate degree of hypertension. Murmurs at the base are likely to be due to arteriosclerosis and not to rheumatism. Lesions of the mitral valves are usually due to rheumatism.

When you have a case like this with a murmur also at the apex, if your patient has ever had rheumatism, you may be safe in calling it mitral insufficiency. If no rheumatism appears in the history and he has had arteriosclerosis or syphilis, the murmur at the apex is probably due to dilatation.

The impossibility of determining the initial lesion in these cases is illustrated in a case of cardiac hypertrophy in a man 60 years of age, with a blood-pressure of 200. The urine contained 5 per cent. bulk albumin, with a specific gravity of 1.015, light colored and twelve to fifteen hundred c.c. were passed in a day. Many of the kidney cells were in a state of fatty degeneration, indicating a chronic condition as well as parenchymatous nephritis. The specific gravity and the amount of urine passed per day would indicate a contracted kidney. The liver was normal; spleen not palpable. The high blood-pressure indicated a contracted kidney. There was a systolic murmur over the base of the heart heard most distinctly over the aortic orifice. No thrill, however, was present and instead of a small pulse, the radial artery was hard, giving the water-hammer pulse characteristic of aortic insufficiency, which could not have been the case if aortic stenosis were present. The large amount of albumin might indicate an acute nephritis, but fatty degeneration in the cells or corpuscles does not occur in an acute condition; the blood-pressure in nephritis does not increase until contraction begins.

In old people we often get the urine of passive venous congestion following broken compensation in cases of old sclerotic kidneys, but if this was the case with so much albumin, the urine would be dark in color and its specific gravity high. Moreover, such blood-pressures as 200 are found usually only in kidney lesions.

The highest grades of blood-pressure occur in chronic interstitial nephritis. The highest grades of edema occur in chronic parenchymatous nephritis. In contracted kidneys, we rarely find any edema. In mixed cases, we may get a moderate degree.

Aortic insufficiency may be the result of endocarditis or of arteriosclerotic changes in the valves. The former consideration is eliminated by the elevated blood-pressure. It is impossible to tell clinically a syphilitic from a non-syphilitic aortitis. The diagnosis, therefore, was arteriosclerosis, aortic insufficiency from arteriosclerotic changes in the valves, hypertrophy and dilatation of the left ventricle, dilatation of the right ventricle, chronic parenchymatous nephritis, myocarditis and an old arteriosclerotic kidney, as shown by the high blood-pressure.

DIFFERENTIATION

The differentiation of the cardiac hypertrophy of arteriosclerosis from that of valvular disease is an easy matter, excepting in late stages of valvular disease.

A mild degree of mitral insufficiency may exist for a short time which will not give rise to hypertrophy, but it is not safe to diagnose insufficiency of the mitral valves without cardiac hypertrophy and its accompanying conditions. Moreover in uncomplicated cases of valvular lesions no matter how great the hypertrophy, the blood-pressure is never raised. The hypertrophy is a compensatory one and when properly established the pressure in the arteries is normal.

In studying these cases one should always remember that when compensation is perfect, blood-pressure is normal; when incompetency begins, the blood-pressure drops. Eventually in all of these cases the heart becomes hypertrophied and

dilated and, as an hypertrophied muscle tends to become degenerated, we later get fatty degeneration and myocarditis.

There is no sure clinical sign of myocarditis. The symptoms of it vary greatly. The therapeutic test, however, can usually be relied on. When a heart muscle is normal, digitalis acts well; the pulse-rate is decreased, and the urine is increased in quantity. When, however, the heart muscle is degenerated but little effect is derived from its administration.

Sooner or later, a second important group of cardiac symptoms results from the dilatation which finally gets the better of the hypertrophy in arteriosclerosis, namely, symptoms of broken compensation.

LOST COMPENSATION

A blowing systolic murmur appears at the apex due to relative insufficiency of the mitral valves, dyspnea, anemia, scanty urine and other symptoms of cardiac insufficiency. The symptoms are practically the same whichever lesion may happen to have been the primary one.

Kovacs emphasizes the fact that tenderness on pressure over the epigastrium is always the first sign of incompetency of the heart and the next sign is the filling of the veins of the neck which become larger than normal and pulsate. He calls the liver the "manometer of the competency of the heart" and says, " it is always the first organ to show failure of compensation." The liver of passive congestion is first enlarged and the sensitiveness on pressure is due to the hyperemia present. Later it may become smaller than normal from contraction of the newly formed connective tissue.

I think we should always try to explain a low blood-pressure. It may be due to anemia, malnutrition, valvular disease (especially of the left side of the heart), strain, weakness, inflammation or degeneration of the heart muscle itself, incompetency following arteriosclerosis or interstitial nephritis and many other causes. After an acute illness it sometimes does not reveal itself until the patient has resumed his ordinary occupation. It seems sometimes to be a normal condition.

Low-pressure cases occasionally become high pressure as when valvular disease causes Bright's disease. High-pressure cases are not convertable into low pressure excepting after incompetency.

CARDIAC IRREGULARITY

There are several different varieties of irregularity of the heart to which patients with arteriosclerosis are subject: 1. Respiratory irregularity in which the pulse-rate is increased during inspiration and diminished during expiration. It is only present when the patient is at rest and disappears when the heart's rate is increased from any cause such as fever or excitement. 2. Extrasystoles in which each contraction of the heart is not accompanied by a pulsation at the wrist. The pulse, therefore, is of an intermittent character. These extrasystoles are found in arteriosclerosis, contracted kidneys, nicotin and digitalis poisoning, etc. It is well known that large doses of digitalis produce extrasystoles in which the heart beat is double that of the pulse at the wrist. They may also be met with in neurasthenia, but when the patient is put to bed the blood-pressure becomes normal and the extrasystoles disappear. You cannot get an extrasystole with a subnormal blood-pressure.

The third form of cardiac arrythmia is the perpetual irregularity in which there is a contraction of the heart with every pulsation at the wrist but in which the ventricular contractions follow no regular rule. Such cases never regain a regular pulse. This perpetual irregularity occurs in mitral stenosis, myocarditis and myocardial degeneration, the result of arteriosclerosis.

McKenzie states, "that 70 to 80 per cent. of the cases of heart disease with really serious failure of the heart belong to this class and that the recognition of this condition is of the greatest importance as a great deal of good can be done by judicious treatment."

THE TREATMENT OF TRIGEMINAL NEURALGIA BY SUPERFICIAL INJECTION OF OSMIC ACID AND ALCOHOL*

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Trigeminal neuralgia is a functional disease of the fifth nerve. It is a degenerative disease and usually occurs after the fortieth year, but may occur as early as the nineteenth year. Men are more often afflicted than women. The disease is unilateral, as a rule; in diabetes the bilateral form is sometimes seen. The right side of the face is affected more often than the left side.

ANATOMY

The fifth nerve is a sensory nerve with one motor root. The sensory portion arises in the cells of the Gasserian ganglion. After leaving

* Read at a meeting of the Kent County Medical Society, Feb. 8, 1913.

the ganglion, the nerve divides into three branches: the superior, or ophthalmic branch makes its exit from the skull through the sphenoidal fissure; the middle, or supramaxillary branch, through the foramen rotundum; the inferior, or inframaxillary branch, through the foramen ovale. Peripherally these branches are reached through the supraorbital, infraorbital and mental foramina.

ETIOLOGY

The cause of trigeminal neuralgia is an open question. Undoubtedly, infectious diseases, ocular diseases, nasal diseases and deformities, carious teeth, sinus infections, alcoholism and exposure to the elements, predispose to the disease. Malarial infection and rheumatic iritis particularly favor neuralgia of the ophthalmic branch.

SYMPTOMS

The pain is neuralgic in character. Usually one or two — rarely all of the branches — are affected. The pain first appears and is most intense in one particular spot; it always reappears in this same spot. The pain is paroxysmal. Paroxysms can be produced by external sensory stimuli peculiar to the individual case—bright light, the touch of a finger or handkerchief, a breath of cold air, the taking of food in solid or liquid form, tasting sweet or sour foods—bring on the paroxysms. It is indeed pitiful to observe the extremes to which the patient resorts in order to avoid these stimuli. The paroxysm usually lasts from a few seconds to a few minutes; in severe cases it may last as long as four hours or more.

The pain radiates over the area of distribution of the particular branch or branches affected. In supraorbital neuralgia, the pain radiates over the forehead, and may also be felt in the eyelid and eyeball. The tender point in affections of this branch is over the supraorbital notch. In neuralgia of the middle branch, the pain is felt between the orbit and the roof of the mouth; also, in the side of the nose and in the upper teeth. Tender points are found over the infraorbital foramen, along the gum of the upper jaw and along the side of the nose; the muscles of mastication may also be tender. In neuralgia of the inferior division, the pain is felt in the lower jaw, in front of the ear, at the side and tip of the tongue, and even in the occipital region. I have noticed that in nearly every case of neuralgia of the inferior branch, the patient complained of pain along the course of the temporo-auricular nerve. Tender points are found over the mental foramen, opposite the tragus of the ear, and along the gum of the lower jaw.

The paroxysms always return. At first they are infrequent; later, the intervals between pains are shortened and the length and intensity of each twinge of pain increases. The pain is so severe and the paroxysms are so frequent that the patient is almost driven to desperation. More or less vasomotor disturbances are evident; the face is usually congested. Trophic symptoms, especially herpes, may occur. Contractions of the facial muscles are often seen. The pain is confined to one side, as a rule, rarely it crosses the median line.

DIAGNOSIS

Success or failure depends on accurate diagnosis, therefore, a careful examination is essential in order to determine which branch or branches are affected. One should always see a patient in a paroxysm. A history of when and where the pain was first experienced is necessary. The pain is most intense in one definite spot and always reappears in this particular spot, even though it may radiate. The pain is always paroxysmal. The disease should be differentiated. Sinus infections, nasal disease and diseased teeth are easily eliminated as definite lesions are discoverable. Cerebellopontile growths cause pain along the course of this nerve; but, other symptoms as optic neuritis, impaired hearing, vertigo, etc., are present. In disease of the Gasserian ganglion anesthesia coexists with the pain.

TREATMENT

First of all, the possible causative factor should be considered. If the patient has carious teeth or nasal deformities they should be remedied; however, one should not go too far in this direction. At first I used the straight alcohol injection, both superficial and deep, but soon discarded this method for a much simpler and, in my experience a more efficacious one. For the past three years I have been using a 1 per cent. osmic-acid solution in alcohol; to this I add about 5 per cent. glycerin to keep the osmic acid in suspension. An ordinary hypodermic syringe and ordinary long needle are used. The needle is introduced into the foramen as far as the length of needle will permit, this is very essential, as a haphazard injection into the integument over the foramen does not bring about the desired result. Some difficulty may be experienced with the supra-orbital and mental foramina. They are smaller and vary in location more often than does the infra-orbital. The supra-orbital notch is the guide in injections of the ophthalmic division.

The infra-orbital foramen is about a quarter of an inch to one-half inch below the rim of the orbit; in a line drawn vertically it is almost exactly below the supra-orbital notch. This foramen is larger and is readily found. The mental foramen deviates slightly from the vertical line. A point to remember is that the mental foramen is always back of the bicuspid ridge. The needle enters this canal at an angle of about 45 degrees, being pointed toward the gnathion.

In some cases, particularly women, I inject a small amount of cocain into the integument over the foramen. One feels his way into the canal, and you can tell when you have entered by inability to move the needle side ways or up and down; the patient will also apprise you of the fact that you have entered the canal. Having introduced the needle, a few drops of the solution are injected. The patients will experience a sensation which they term "just like an explosion." Then slowly inject the rest of the solution: while this is being done the patients complain of a hot burning sensation along the course of the nerve. In injections of the infra-orbital foramen, patients will tell you that they can taste the hot burning solution. After injection the needle is slowly removed and the wound sealed with collodion. Following a successful injection there will be first a complete cessation of all pain; second, more or less anesthesia over the area of distribution of the nerve; third, every case has paresthesia—jerking or crawling sensations in the area of the nerve affected. This paraesthesia is persistent, lasting from six months to nine months. Patients should be told of this feature as many of them are neurotic, due to prolonged suffering and lack of proper nourishment and outdoor exercise. The neurotic condition should be treated by suggestive and supportive treatment.

PERSONAL EXPERIENCE

The results are very gratifying indeed, they seem almost miraculous to the patients and their friends. In my series of twenty-one cases covering a period of three years, I have had only one patient return for a second injection, this being due to faulty technic. It was a mental injection and I failed to inject back of the bicuspid ridge the first time I treated the patient. There is absolutely no danger connected with this method, there is slight swelling, but it soon subsides. The statement that abscesses follow the injection of osmic acid is not true if one takes an ordinary amount of aseptic precaution.

COMPARISON WITH OTHER METHODS

There is no necessity of subjecting a patient to gasserectomy until all other methods have failed. Few men are competent to perform a good gasserectomy. The cost is prohibitive to the patient. The danger of injury to other nerves during the operation is great. The patients are old, as a rule, and do not stand a prolonged anesthetic well. There is also more or less disfigurement.

Resection or cutting of the nerve should be discarded. The trouble invariably returns in a short time; hence, the result does not justify the operation. It should also be discarded for cosmetic reasons.

In alcohol injections, both superficial and deep, the results are not as good as those obtained with osmic acid injections. In superficial alcohol injections the relief is only temporary. In deep injections the trouble will return and the relief is not as permanent as that obtained with osmic acid. The technic required to do the deep alcohol injections precludes its general use, as serious hemorrhages may follow faulty technic. Electricity is of no value. Drugs are a menace; there is absolutely no justification for pumping a patient full of morphia, or any other drug, as is so commonly done.

CONCLUSION

In conclusion let me say: the superficial method with osmic acid will prove a boon to many sufferers. Anyone who will make a careful diagnosis, observe a few rules of asepsis and remember a few points of anatomy can obtain results. No special syringe or needle is needed. The injection can be done in the office or at the home. There is no discomfiture, the patient can attend his business the same or at most the following day.

CLINICAL FACTORS IN *X*-RAY WORK*

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KALAMAZOO, MICH.

The roentgenologist usually has a medical education and the right to practice. His natural position is that of a consulting diagnostician. As such, he should feel obligated by the code of ethics of the American Medical Association and should guard the reputation and standing of the attending physician as a brother practitioner. Only on these terms can both work together for the good of the patient. The results of *x*-ray examinations should be communicated first to the attending physician. Communications to the patient are governed by the same rules as in other consultations. The plate of

*Read at the Midwinter Session of the Western Section of the American Roentgen Ray Association, Chicago, Feb. 22, 1913.

original record belongs to the roentgenologist. The attending physician is entitled to a correct copy with an interpretation. The requests of the patient are properly referred to the attending physician.

As a consultant, the roentgenologist is entitled to a knowledge of all the facts in the case, and to the privilege of such examinations as are necessary to form his interpretation. Without these preliminaries he may produce beautiful plates without showing the pathology; or he may interpret screen and plate images without interpreting the case.

In the hurry of an *x*-ray practice many may attend only to the production of good plates. In fractures, kidney stones and foreign bodies this may be sufficient. But with the medical cases, which are now multiplying in *x*-ray work, such a course may put the roentgenologist in a position of defense and explanation. For example: The case is one of a stomach disorder, which has defied treatment. After the bismuth meal, after the fluoroscopic inspection in the upright and the horizontal position, after the manipulations of the wooden spoon, after the exposure and development of plates, then the attending physician and the patient expect results commensurate with the wonder of the performance. To have gone through an elaborate examination, in the midst of elaborate apparatus, and then to listen to elaborate explanations as to why we cannot tell exactly what the matter is, seems like straining for an elephant and bringing forth a mouse. To resist making a positive diagnosis under these circumstances is a test of character; or, of a sad experience, that diagnostic mistakes are boomerangs. Afterward is a poor time to go into the history and clinical examination of the case. Let us remember that in gastro-intestinal cases a diagnosis can rarely be made by the *x*-ray alone. Therefore, when such a case is brought in for examination, let us be sure that we can, so far as possible, assemble all the factors which are necessary to form a true diagnosis.

The most dangerous effort of the *x*-ray diagnostician is to attempt negative diagnosis without full clinical data. Perfectly normal bone detail may be shown on good plates in cases of early tuberculosis and other acute bone infections. As Dr. Potter once said in my presence: "In acute osteomyelitis, showing normal bone structure, the surgeon should forget that he had an *x*-ray plate and should pay attention only to the clinical indications."

The Roentgenologist is rightly called on to aid the clinician in diagnosticating pulmonary tuberculosis in its earliest possible stages. Not infrequently, the physician has a family under his care where one or more have died of pulmonary tuberculosis. The first signs of pulmonary trouble in any of the surviving family are of paramount importance. He finds perhaps in one member a daily afternoon rise of temperature to 99 or 99.5. There is a slight cough, but no expectoration. The skin reaction of tuberculosis is present, but that in adults is of value only in the negative; so that it is of use for exclusion only. The signs over the chest are limited to a slight but definite increase in the breathing sounds on auscultation over the right side below the clavicle. There is no dulness on careful percussion. Such a case is brought to the *x*-ray table for final diagnosis. On the screen the diaphragm movement is unrestricted on either side. The darkening and lightening of the lung area during a forced expiration and inspiration are even and normal. No gross lesion can be seen on the fluoroscopic screen. There is no fluid in the chest. A good plate shows that the pulmonary area below the clavicle on the right side, over which the clinician heard increased breathing sounds, is in reality perfectly normal. The case narrows to a consideration of the hilum cluster of shadows. Here the roentgenologist is confronted with real difficulties. The hilum cluster may be present in the tuberculous and the non-tuberculous; in the old healed cases and in the fresh progressive cases; often in the young before 20; always in the adult after 40.

Lymphoid tissues, nodes and glands of the throat, bronchi and hilum are the forts and defenses of the lungs against bacterial invasion. The lymphatics of the hilum are the final line of defense guarding the rich nutritive areas of the lung. Arrested cases of tuberculosis and other respiratory infections are arrested at the hilum in the vast majority of mankind. Hence the confusion of skiagraphic interpretation of the hilum cluster.

Therefore, at just the point where the first skiagraphic signs appear is the point of greatest difficulty in interpretation. Here we are forced to acknowledge the superior value of the stethoscope and trained ears. The increased breathing sounds below the clavicle in the absence of pulmonary congestion or infiltration means increased density of the hilum structures whereby sound conduction is intensified along the larger intra-pulmonary bronchi. The clinical signs plus the skiagraphic signs, in a generalized case such as I have taken for illustration, definitely locates the trouble in one hilum. But the work of diagnosis does not end here.

The essential point in incipient cases is whether or not the lesion is progressive. Clinical observation is incontestably superior to any single *x*-ray examination for such a determination. But, if a plate a week or every two weeks is made, progression of a hilum infection or progression beyond the hilum may be demonstrated skiagraphically.

For such repeated examinations of the hilum, small plates and a small diaphragm increase definition and decrease expense.

In no department of *x*-ray diagnostics is the interpretation of screen and plate more clearly contrasted with the interpretation of the case as a whole, than in the examination of the alimentary system. Our roentgenographic factors are derived from observations of the esophagus, stomach or intestines coated with bismuth or barium or distended with air; also from observations of the food-mass, impregnated with bismuth or barium, as it undergoes the movement of digestion.

No more wonderful development has ever been seen in the whole range of medical history. Few clinicians yet realize that it is now practical to watch the bismuth meal enter the stomach; to see the peristaltic waves begin at the fundus and travel to the pylorus; to observe the food material as it is ejected into the duodenum and carried to the jejunum; to be able at the same time to palpate and move the viscera under inspection; to locate pain points, filling defects, muscular stasis, contractures, adhesions, the diverticula of perforating ulcer or the inertia of atrophy and ptosis. A few hours later (always, of course, within the time limits of *x*-ray safety) the bismuth-coated colon and portions of the ileum are ready for an inspection no less extraordinary and practical than in the case of the stomach. Pain-points, adhesions, angulations, stasis, ptosis, dilatations, the presence of a Lane's kink, the competency of the ileo-cecal valve, the position of the appendix and, not infrequently, the appendix itself are matters of *x*-ray observation.

The large open fluoreseent screen, thus used, becomes a true roentgenographic moving picture. It brings the physical examination of the chest and abdomen to a degree of completeness beyond the youthful dreams of clinical masters still living. An exploratory operation on a patient under anesthesia through an incision from the ensiform to the pubes would often add less to the diagnosis. If we were able to remove the living viscera intact—as Carrel does in the case of animals—we would still be unable to duplicate the knowledge obtained from studying the moving *x*-ray image of the bismuth-coated inside lining of the stomach and intestine in place in the conscious patient who is able to answer questions, deseribe sensations, while being palpated, and whose alimentary tube reacts to stimuli without the interference of anestheties. But—impressive and valuable as this all is; yet apart from a good clinical history, a good clinical record and laboratory analyses—the *x*-ray screen and plate give data which are too often inadequate and insufficient for the requirement of intelligent treatment. Separate items of diagnosis, such as Lane's kink, a ptosis, etc., are not enough.

The amount of hydrochloric acid or its absence in the stomach is of more importance, to the internist, than the picture of a gastroptosis. The surgeon requires more than a filling defect, and an arrested peristaltic wave to assure him of a carcinoma of the stomach. The clinician will continue to use his ear for the first signs of tuberculosis. But let not the consulting room of the internist, the laboratory and the *x*-ray room become chambers of discord.

The diagnostician without the *x*-ray is blind; but he who is without the stethoscope and the percussion hammer is deaf. Let not the deaf argue with the blind, for such is without profit. But let the deaf put away their deafness and the blind put away their blindness. Then will a miracle come to pass: the art of diagnosis will have a new birth.

CIRSOID ANEURYSM OF THE HAND

MAX BALLIN, M.D.
DETROIT

The following case of peculiar blood-vessel affection is so singular as to be worthy of publication. It is one of the rare cases where an exaggerated growth of blood-vessels leads to a condition almost malignant.

The literature on this subject shows very little explanation of this peculiar process. The most explanatory article on cirsoid aneurysm is by E. Burci,[1] in a study of "Cirsoid Aneurysm," claims that cirsoid aneurysm is formed by a considerable dilatation and tortuous elongation of veins that will also become pulsating through a certain degree of dilatation and hypertrophy of capillaries, and finally through a slight degree of dilatation of the arteries, in whose walls, in time, no hypertrophis but regressive obliteration occur.

In the following case the cause of the formation is somewhat different, by reason of the fact

1. La Clinica Moderna Nr. 1, 1906.

that from the first a pulsating communicating tumor between arteries and veins had taken place.

The case, through the accompanying illustrations, will explain this fact.

Mr. Fred H., 30 years old, steamfitter, had always enjoyed best of health; never used alcohol to any extent; and gives no history of any infection.

History.—On Aug. 11, 1911, he tried to stop a sliding steel casing with his right hand, the mass of steel hyperextending the hand at the carpal joint with great force. He felt a sharp pain and noticed, the next day, the veins on the dorsum of the injured hand were very much swollen. In the next few weeks, pain in the hand and, objectively, the swelling of the veins, were the most marked symptoms present. The swelling of the veins on the dorsum of the middle of the hand was so marked that the attending physician excised some of them, considering them to be merely varicose veins. But the swelling of the veins returned immediately and extended slowly to the little finger and on the palmar side into the hypothenar region; the hand was swollen, perspiring profusely and causing intolerable pain.

Examination.—When I saw the patient first in consultation, on April 3, 1912, seven months after the accident, the following findings were noted: General appearance, healthy looking man with splendidly developed muscles. The right hand is very much swollen, especially on the ulnar side. The swelling is not of an edematous character, but seems to be caused by overfilling with blood; the hand perspires very freely, especially on the little and the ring finger; swelling extends somewhat on to the forearm. The back of the right middle hand shows marked varicose veins, which extend on volar side into hypothenar region and little finger. The veins showed slight pulsation. (See Fig. 1.)

Flexion of hand and finger is painful; patient complains of throbbing pain in ulnar part of hand; it keeps him from sleeping.

Figs. 1 and 2.—Appearance of hand, note swelling of hypothenar and dilated veins.

On palpation, I noticed a pulsation of the swollen hypothenar; by auscultation a loud bruit could be heard over the whole hypothenar region, extending along the ulnar artery two inches above the wrist. The bruit was loudest in the middle of the hypothenar region, being synchronous with the pulse. Elevation of the arm diminished the pain and the bruit. Compression of the brachial artery stopped all the symptoms, which returned immediately on the cessation of the compression. Measurement of the left hand around the palm was 8 inches, the right measured 9 inches.

Diagnosis.—From these symptoms, the diagnosis of an aneurysm of the superficial end-branch of the ulnar artery with venous com-

munication was obvious. The aneurysm, from the record, should be classified as a traumatic one.

Symptoms.—The symptoms were classical: the pulsating tumor, the bruit—so loud as to be a real auscultatory treat—the relief of the symptoms by compression, justified the diagnosis of aneurysm; the overfilling and slight extension of the pulsation into the veins warranted considering the aneurysm as one of arteriovenous type.

A radiogram of the hand, taken at the same time, showed a marked erosion of the fourth metacarpal bone and the phalangeal bones of the little and ring fingers, just as an aortic aneurysm erodes the sternum and ribs. (See Fig. 2.)

Figs. 1 and 2.—Appearance of hand, note swelling of hypothenar and dilated veins.

Patient readily accepted our proposal to ligate or excise the aneurysm.

Operation.—Operation was performed on April 10, 1912. Under Esmarch-anemia, a longitudinal incision was made over the course of the ulnar artery, from one inch above the wrist, over the whole hypothenar, down until the aneurysmal sac was encountered. The ulnar nerve was freed and pushed aside. The bluish sac was very thin, no fibrous tissue being thrown out around it (as is usual in aneurysm); therefore, a Matas aneurysmorrhaphy was not thought advisable, as the sac was too thin for any suture, and the excision of the sac was performed. The sac extended above the wrist into the ulnar artery, which was ligated about an inch above the carpal ligament, where it seemed to be of normal caliber. Then the sac in the palm was dissected out; it no doubt was formed by the ulnar part of the superficial palmar arch and had three or four communications, one of which seemed to lead into a vein; all were ligated. The wound was closed tightly by deep and superficial sutures; the dressing supported by splint.

The specimen (see Figure 3) shows a sac formed by a blood-vessel, three inches long, dilated in three places; the sac communicates with other blood-vessels.

Post-Operative History.—The wound healed by first intention; the patient left the hospital on April 16, 1912; all symptoms, pain, throbbing, perspiration, having been relieved. This condition continued until May 3, 1912; that is, for nearly four weeks after the operation, when patient declared the pain and perspiring had suddenly come back during the night. We could again notice a slight pulsation and dilatation of

the dorsal veins, that increased rapidly, and on May 5, a bruit could again be clearly heard over the dorsal end-branch of the radial artery. For the next week compressive bandages were tried, only to give temporary relief, lasting only as long as the compression was kept up.

On May 13, 1912, under local anesthesia, the end-branch of the radial artery was ligated immediately over the wrist, proximal and distal to a slightly dilated sac-shaped part. This again gave relief of symptoms for about three or four

Fig. 3.—Radiogram, showing erosion of fourth metacarpal and phalangeal bones of little finger.

weeks, then all the symptoms returned again.

On June 10, 1912, we again ligated a communicating pulsating branch of the radial vein between the head of the first and second metacarpal bones; excising all the dilated veins around this part of the artery.

On June 25, a similar excision of blood-vessels and mass-ligature of the dilated veins was performed on the volar side, between the fourth and fifth metacarpals.

On July 20, and August 31, two more ligatures were applied on the radial system.

All these operations always gave relief for only a short time. The ligations were done at the point where auscultation and palpation showed the loudest bruit.

Subsequent History.—During the early part of October, the whole ulnar side of the hand, including the hypothenar region and little finger, also the ulnar side of the fourth finger, consisted of a big mass of overfilled, throbbing veins. The hand was perspiring freely, looked bluish and the flexion of the fingers was very limited, owing to pain. The whole region mentioned seemed to be taken in by this pulsating mass of blood-vessels. As extension into the ring finger was rapidly progressing, amputation of little finger with its metacarpus was proposed and willingly accepted, as the patient was unable to sleep on account of pain.

Amputation of Finger.—The amputation was performed on Oct. 12, 1912. The little finger with the whole metacarpus was removed. The hemorrhage was most profuse, and the Esmarch bandage had to be replaced several times. No doubt we had to deal with large cavernous spaces

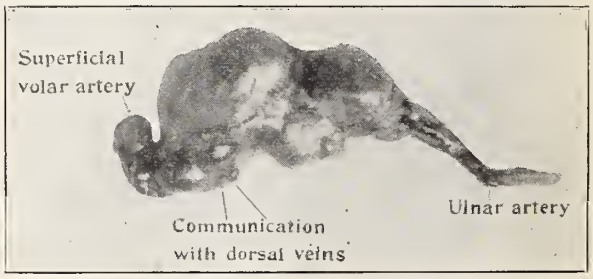

Fig. 4.—Aneurysmal sac excised, injected with paraffin. A. Ligature on ulnar artery. B. Ligature on superficial palmar arch. C. Venous communication.

that required large ligatures *en masse*. This amputation, with its widespreading ligatures around all the vessels, volar and dorsal of the fourth metacarpal bone, did not stop the throbbing pain and the perspiration in the ring finger. The blood-vessel affection no doubt had extended beyond the field of amputation. The dilated veins persisted all over the dorsum of the hand, and even the superficial ulnar vein was enlarged to a large varicose vessel above the elbow. A bruit was still present over the volar side of the wrist, midway between radial and ulnar arteries.

Microscopy.—The specimen from the little finger gave the following microscopical findings: The blood-vessel tumor consists of a mass of large dilated veins (just like *corpus cavernosum*); no malignancy. (On account of progressiveness of infection, angiosarcoma was naturally expected.) The muscles show extensive centers of necrosis and atrophy of tissues. (Trophic changes.)

Further Course.—On Nov. 21, 1912, Dr. J. B. Murphy of Chicago, saw the patient with me, to

deeide the question of amputation of the forearm. His adviee was to ligate once more, at the point of most audible pulsation, mentioned above, midway between ulnar and radial artery, two inches above the carpal ligament; and if not successful, to amputate at the forearm, eonsidering that the blood-vessel affection was rapidly progressive and

Fig. 5.—Radiogram of amputated hand, blood-vessels injected with red lead. Note A. Point of ligature on radial artery. B. On ulnar artery. C. Cirsoid course of arteries; also the normal digital arteries on index and thumb, but encroaching of blood-vessel tumor on to the base of all fingers.

may finally get beyond control, beyond the shoulder.

Aceording to his advice, on Nov. 24, 1912, I disseeted through a longitudinal ineision down through the flexor tendons and encountered at the point mentioned a dilated arterial sac, whieh no doubt eommunieated with some large vein. (The operation was done without Esmareh, a temporarily applied digital compression of the brachial artery allowing inspection of the pulsation when necessary.) The dilated part was excised, the communication ligated.

This operation gave decided relief again, for a few weeks. To show how seriously the affection interfered with the patient's general health, in the first two weeks after this operation, the patient being free from pain and able to sleep, gained twelve pounds in weight.

Amputation of Forearm.—On Dec. 23, 1912, the return of the cavernous mass into the ring and middle finger with all the distressing symptoms was obvious. On Jan. 3, 1913, a severe hemorrhage occurred from a small granulation remnant from the amputation of the little finger, no doubt the granulation had grown into the cavernoma, or *vice versa*. Therefore, the neeessity of amputation of the forearm beeame imperative, and was performed on Jan. 13, 1913, from which operation the patient made an uneventful reeovery, and is well up to the present time.

The blood-vessels of the amputated hand were, immediately after the operation, injected with a mixture of red lead and wax, through the ulnar artery, and a radiogram taken afterward gave this most wonderful picture, shown in Figure 4, which shows how justifiable the final amputation was.

Pathological Findings.—Dr. A. S. Warthin of Ann Arbor, Mieh., was kind enough to examine the specimens, and reports: "The vessels have greatly dilated lumina and much thiekened walls, showing that the vascular changes must be of some chronicity, probably congenital, the condition developing after trauma, as has been observed in a number of cases of this rather rare and interesting condition."

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HYPOTENSION AND HYPERTENSION; THEIR MECHANISM AND THERAPEUTICS *

THEODORE A. MCGRAW, JR., M.D.

DETROIT

Pathologieal inerease and deerease in blood-pressure are, it should be understood, symptoms of disease; not the disease itself. So that in diseussing hypotension or hypertension, we will

*Read before the Wayne County Medical Society, March 10, 1913.

consider these conditions in their relation to the principal diseases in which they occur.

The maintenance of arterial tension may be said to depend on two major factors: cardiac force and peripheral resistance; and on two minor factors: the elasticity of the arterial wall and the volume of blood in the vessels. That subnormal pressure always depends on a disturbance of one or more of these four factors, may, I think, be accepted as true.

HYPOTENSION

Hypotension, or subnormal blood-pressure, is found as a symptom in a variety of pathological conditions, and Janeway[1] has classified the latter as follows:

1. In wasting diseases as in advanced phthisis and in cancer.
2. After the use of vasodilator drugs.
3. In infectious diseases.
4. In terminal conditions.
5. In hemorrhage.
6. In collapse and shock.

The hypotension seen in such cachectic states as cancer is due undoubtedly to a disturbance of at least three of the four factors in maintaining tension: cardiac energy, peripheral resistance and the volume of blood in the vessels. The diminution in these three physiological processes is simply one expression of the very low state to which the body comes in such diseases.

Hypotension resulting from the administration of vasodilators—the nitrite group—is due in great part to the dilation of the splanchnic vessels; that resulting from chloroform anesthesia, first to depression of the vasomotor center, and later to diminished cardiac energy.

It is, however, in the infectious diseases especially that the greatest strides have been made in the study of hypotension. In tuberculosis a subnormal pressure is almost constant. I cannot do better, I think, than to quote the conclusions of Emerson,[2] who based his work on a study of 200 tuberculous cases. He says:

> Hypotension is universally found in advanced tuberculosis, in which condition emaciation may play a part in its causation. Hypotension is found in almost all cases of moderately advanced tuberculosis or in early cases in which the toxemia is marked, except when arteriosclerosis, the so-called gouty diatheses, chronic nephritis or diabetes complicate the tuberculosis and bring about a normal pressure or hypertension. Hypotension in tuberculosis increases with the extension of the process; recovery from hypotension accompanies arrest or improvement. Prognosis can be as safely based on alteration in blood-pressure as on changes in pulse or temperature. The causes of hypotension in tuberculosis are probably primarily a toxic action on the vasomotor center in the medulla, allowing of a vasoparesis or stimulating an active vasodilatation, and secondarily progressive cardiac atrophy or degeneration. The results of hypotension in tuberculosis or in any other condition is insufficient capillary pressure, more or less venous stagnation and insufficient nourishment, with resulting atrophy or degeneration of the essential organs of the body.

As an additional factor in the causation of hypotension in phthisis Pottenger[3] cites the diminished action of the diaphragm which causes splanchnic congestion, since the usual suction action on the veins, which is normally induced by the diaphragmatic excursion is diminished or lost.

Within the past two or three years hypotension in pneumonia has been studied quite extensively. The low pressure in this disease may be ascribed to the action of the toxins on the vasomotor center, the walls of the vessels themselves, and, in more severe cases, to diminished cardiac energy. Gibson[4] of Edinburgh formulated this rule which clinical evidence seems to verify: When the arterial pressure expressed in millimeters of mercury does not fall below the pulse-rate expressed in beats per minute, the prognosis is good. The converse is also true.

In scarlet fever, the toxemia exerts its influence in lowering pressure. The extent and the duration of the hypotension vary in direct proportion to the severity of the attack. The tension is usually lowest during the second week and usually reestablished by the fourth weeks.[5] Complicating nephritis may or may not show hypertension; the presence of hypertension points to renal involvement; its absence does not deny it. In typhoid and diphtheria, low pressures are usual. In Addison's disease it is also the rule; due, it is believed, to adrenal insufficiency and therefore to a lack of normal pressor substance in the circulation. Antemortem pressure may give very low readings; in a case of diabetic coma seen a few days ago I found shortly before death a systolic pressure of 48; diastolic, 40; pulse pressure, 8. Hemorrhage and shock must be mentioned as causes of hypotension, but, as surgical conditions, do not come within the scope of this paper.

TREATMENT OF HYPOTENSION

The treatment of hypotension is, of course, directed toward the cure or improvement of the disease in which it is a symptom. The subnormal pressure in wasting diseases rarely, I think, demands direct treatment; a rise of pres-

1. Janeway: Clinical Study of Blood-Pressure.
2. Emerson: Arch. Int. Med., April, 1911.
3. Pottenger: New York Med. Jour., Aug. 31, 1912.
4. Gibson: Glasgow Med. Jour., May, 1911.
5. Rolleston: Brit. Jour. Child. Dis., Oct. 19, 1912.

sure will accompany improvement in the causative disease, whether it be accomplished by hygienic, medicinal or operative measures.

In tuberculosis, fresh air, abundant nourishment, moderate exercise and sufficient rest will elevate the low pressure in just that proportion that they improve the disease. Hoobler,[6] who studied the effect of cold fresh air in tuberculosis of children and young adults, found that with the transfer of the patients to open air there was a gradual rise of pressure within one to two hours; that if the patient was kept in the open air, the pressure remained higher, but was reduced again on going indoors. He also found that the more advanced the case, the lower the pressure indoors and the greater the rise in the open air. Practically the same results were attained with the open-air treatment of pneumonia.[7]

We have said that in pneumonia the fall in pressure may be due to either vasomotor or vascular causes or to the weakening of the heart muscle in addition. For the purposes of treatment it is important to know which condition predominates, and here the pulse-pressure may give us some indication; a high pulse-pressure, i. e., a great difference between the systolic and the diastolic pressures, points to vascular insufficiency; a low pulse-pressure suggests the failing heart. In the first instance, vasoconstrictors are indicated; if given in the last, the increased resistance may fatally overburden the already weak heart.

As a vasoconstrictor epinephrin (adrenalin) has perhaps the first place; its effect being chiefly due to direct action on the muscular coats of the peripheral arterioles.

Pituitary extract has much the same action, but the effects are more prolonged. Ergot is also used for the same purpose. Subnormal pressure from failing cardiac force calls for digitalis, strychnin or caffein.

HYPOTENSION CONCLUSIONS

To sum up:

1. Hypotension is usually the result of lowered peripheral resistance or diminished cardiac force or both.

2. Its treatment should be directed primarily toward that disease in which it appears as a symptom.

3. When it is necessary to treat hypotension directly we must decide whether the vascular system or the heart is the chief offender; to this the pulse-pressure may give us the necessary clue.

4. If the heart is failing, vasoconstrictors should be used with great caution or not at all.

HYPERTENSION

The highest blood-pressures have been recorded in cases of acute intracranial tension, as in apoplexy, fracture of the skull or in rapidly-growing brain tumors; in such cases a cerebral anemia of greater or lesser degree, caused by the increased pressure on the cerebral vessels, occurs. The mechanism is interesting: the vasoconstrictor center is stimulated by its anemia; the arterial vessels, including the spanchnic system —that great potential blood-reservoir—contract; the heart is stimulated to greater effort, the pressure rises, and the anemia of the vital centers is temporarily relieved. As the intracranial tension rises the stimulus to the constrictor center increases and the blood-pressure rises again to keep pace. In fatal cases, the center finally becomes exhausted, the blood-pressure falls and death from asphyxia ensues.

The hypertension occurring in arteriosclerosis has naturally quite a different origin. It is now believed, partly as the result of animal experiments and partly from clinical experience, that in a fairly large percentage of cases arterial disease is the *result* as well as the cause of hypertension. In such cases prolonged hypertension produces sclerotic arterial changes, which in turn help to maintain the hypertension; thus a vicious circle is established.

Persistent over-eating and drinking, excessive and prolonged daily mental or physical strain are among the factors in the causation of the original hypertension; in such cases toxins, called pressor substances, circulating in the blood cause a spastic contraction of the vessel walls and this in turn elevates the blood-pressure. When the sclerotic changes appear the hypertension becomes more permanent depending as it does on loss of arterial elasticity as well as on vasomotor spasm. Hypertrophy of the left ventricle is the natural result of this extra work.

Not all cases of arteriosclerosis show hypertension. You will find cases in which the palpable arteries are hard and tortuous with normal or subnormal pressure. This seems to depend on the location and the extent of the arterial involvement. Janeway[8] says: "Arteriosclerosis leads to hypertrophy of the left ventricle only when the splanchnic arteries or the aorta above the diaphragm are highly diseased. The arterio-

6. Hoobler: Am. Jour. Dis. Child., November, 1911.
7. Ibid: May, 1912.
8. Janeway: Clinical Study of Blood-Pressure.

sclerosis of the remaining vascular districts does not appear to exert this influence." Possibly, in some of these cases, the arterial change is so marked that vasomotor spasm does not contract the vessels. It is in the senile type of arteriosclerosis that hypotension sometimes is seen; here the heart is small and its muscle flabby.

Elliott,[9] writing on hypertension, thinks that the hypertension in arteriosclerosis depends on toxemia rather than on arterial degeneration. That were this not the case we would expect to get higher pressure readings in senile calcification of the arteries. For the same reason we might anticipate higher pressure values in arteriosclerosis than in chronic nephritis, because of the more essentially vascular character of the former disease.

Angina pectoris usually shows a high blood-pressure during the attack. This is probably due to a combination of the vasomotor spasm which affects the whole arterial system as well as the diseased coronaries, and, of the severe pain which is a well-known factor in elevating pressure. Many cases have, of course, hypertension to start with as a symptom of the accompanying arteriosclerosis. In fact, it is hard to explain the few reported cases of angina without hypertension.

There is no pathological condition in which hypertension is so constant a factor or in which the pressure averages so high, as in chronic nephritis — always excepting acute intracranial tension and possibly angina during the attack. For, with those two exceptions, a blood-pressure over 200 mm. is most suggestive of nephritis. Arteriosclerosis without renal involvement rarely shows that pressure. It is in the interstitial variety of nephritis that the highest tensions are seen.

The theories explaining rise of blood-pressure in nephritis have undergone considerable modification in the past two or three years. It was at first considered that the hypertension was due entirely to mechanical causes; that is, to the reduction in renal circulation due to the anatomical changes in the kidney, which demanded and obtained a higher pressure to overcome the increased resistance ahead. Later observation, however, showed that hypertension exists where there has been only slight renal involvement, and that dogs, having both renal arteries partially obstructed, showed no increased tension.

Janeway,[10] in a recent article, reviews the present ideas as to hypertension in nephritis. They are, briefly, as follows: It is due to (1) increased viscosity of the blood; (2), to the presence in the blood of so-called pressor toxins which stimulate the vasoconstrictor center. One theory being that the pressor substance is derived from the degenerating kidney, another that it is adrenalin in the blood due to overactivity of the suprarenal glands. Janeway believes, that while pressor toxins are the cause of hypertension, they are not derived from either of the above sources. The whole subject is as yet, a very obscure one. High pressures in uremia and eclampsia are undoubtedly of toxic origin. In lead-poisoning it is probably a combination of toxemia, arterial change, and during the colic, of pain.

9. Elliott: Am. Jour. Med. Sc., July, 1910.
10. Janeway: New York Med. Jour., Feb. 22, 1913.

TREATMENT OF HYPERTENSION

If we are in accord with the premises laid down in the opening paragraph of this article—namely, that hypertension is a symptom, not a disease—we must also admit that the treatment of hypertension should be primarily the treatment of whatever disease of which it is a symptom.

Hypertension is in many cases—some say in all cases—a compensatory condition, and in such cases indiscriminate and too great lowering of pressure by drugs or by electricity is as dangerous and as foolhardy as the attempt would be to reduce cardiac compensation. This principle can be well demonstrated in considering the treatment of our first cause of hypertension, increased intracranial pressure.

Here it is obvious that endeavoring to lower pulse tension by prescribing vasodilators, would, should it succeed, put just that much more strain on a laboring heart. The treatment is, of course, reduction of the intracranial tension by operation; treating the disease not the symptom. The only medical treatment possible and one only to be used in an inoperable case would be the "administration of large doses of atropin, hoping thereby to paralyze the vagi, increase the heart's frequency and thus allow a more easy rise of pressure."[11] Lumbar puncture might be worth trying, with the hope thereby to reduce the intracranial pressure.

In considering the treatment of high blood-pressure in incipient or in well-developed arteriosclerosis, we have a more complicated subject. We have said that prolonged hypertension breeds arterial disease; that that kind of hypertension is induced by over-work, mental or physical, but especially by over-eating and drinking, habits peculiarly characteristic of the American people. It has been noted by men doing blood-pressure work that higher pressures are as a rule found

11. Hirschfelder: Diseases of Heart and Aorta, edition 1.

on Monday morning, a result of Sunday's dietary indiscretions! This kind of hypertension may also be compensatory in character; i. e., increase of pressure to meet the demand for increased elimination. In these incipient cases the treatment must here again be directed toward the cause.

A general reduction in diet, especially in proteids, for the products of proteid metabolism seem especially apt to act as pressor toxins. Elimination of alcohol, of course, but also a reduction in all fluids ingested; this for two reasons: to stop overfilling the blood-vessels and to aid in the reduction of food intake. A salt-free or partially salt-free diet will also help in this particular. A sufficient amount of gentle, graded exercise, preferably walking, bathing to stimulate skin elimination, good intestinal evacuations and a let-up from mental strain will go far in preventing these incipient cases from developing into full-fledged arteriosclerosis.

We have seen that hypertension in developed arterial disease is a combination of spastic arterial constriction and of anatomical arterial change. For the first factor, the treatment outlined for incipient cases may well be applied. for the latter potassium or sodium iodid have long been prescribed. Whether the iodids exert any influence on the sclerosis, except possibly in specific cases, is very doubtful. They are, perhaps, a harmless means of keeping the pressure within safe limits and good results are frequently reported.

In acute attacks of high tension—the so-called vascular crises in which there is sudden vertigo, dyspnea and headache with slight precordial pain or perhaps severe angina develops, the vasodilator drugs are of the greatest use in tiding the patient over. Amyl nitrite, nitroglycerine and erythrol tetranitrate are most frequently used. They should, however, be supplemented with rest in bed and a mercurial and saline purge, and perhaps in severe cases venesection or a hot pack.

It is much better, I believe, in maintaining blood-pressure at safe and comfortable limits, to rely mainly on dietary and physical measures and to keep our drugs for the emergencies. In certain cases where very high pressures do not yield to diet and hygiene, small and repeated doses of nitroglycerine or of the nitrites may be indicated; but the patient should be under constant observation and the blood-pressure and the urinary output carefully watched.

What has already been said about the treatment of high tension in arterial disease is equally applicable to chronic nephritis. Hypertension is undoubtedly a normal condition in nephritis. If it is not giving symptoms and does not rise beyond what may be considered safe limits for that particular disease and patient, it should not be interfered with. Headache, vertigo, insomnia, those harbingers of uremia, may best be treated with rest in bed, attention to diet and bowels, hot packs and perhaps small doses of nitroglycerine, which is sometimes followed by gratifying diuresis. In other words, treat the toxemia, the cause, not the hypertension, the symptom.

A word should be said about the treatment of hypertension by the high frequency current. It has been proved beyond doubt that this form of electricity will reduce most forms of hypertension promptly from 10 to 70 mm., and if applied frequently, the pressure may be permanently kept low. There is considerable controversy concerning this method between the internists and the electro-therapeutists; the argument resolves itself into the question of when hypertension is compensatory and when it is not, for both sides now admit that high frequency should not be used to reduce purely compensatory high tension. Snow[12] of New York, one of the leading electro-therapeutists, thinks that only "in parenchymatous nephritis, in cirrhosis of the liver, or whenever incidental resistance other than hypertension is present in the path of the circulation" is hypertension compensatory. Internists, on the other hand, hold more to the views expressed elsewhere in this paper—that most all hypertension is more or less compensatory, so that the genuine indications for lowering tension by high frequency are few and far between.

It seems to me that what has been said about the use of vasodilator drugs holds true concerning high frequency; that if used, it should be regarded only as an adjunct to dietary and hygienic measures and then with great caution and with careful blood-pressure control.

CONCLUSIONS ON HYPERTENSION

To sum up on hypertension:

1. It is a symptom not a disease; so treatment should be directed toward the disease in which it appears.

2. It is usually compensatory and it is better to reduce it indirectly than by direct dilation of the arteries.

3. When it is necessary to lower tension directly as in angina or in threatened apoplexy, the blood-pressure should be carefully controlled

12. Snow: Med. Rec., Dec. 16, 1911.

by frequently taking records of the pressure, which should not be lowered beyond what may be considered normal limits for that particular disease. And finally

4. Indiscriminate prescribing of vasodilator drugs in every case of high pressure regardless of indications, is to be soundly condemned.

73 Cass Street.

THE USE OF THE SPHYGMOMANOMETER IN GENERAL PRACTICE *

W. J. WILSON, JR., M.D.
DETROIT

More than a hundred years elapsed from the time of Harvey's discovery of the circulation of the blood, before Hales, in 1733, demonstrated the fact of blood-pressure. In 1828, Poiseuille invented the mercurial manometer in the form of a U-shaped tube, and discovered the usefulness of a saturated solution of sodium carbonate in preventing the coagulation of the blood in the system of tubing used to connect directly with the artery of the animal in experimentation. Ludwig, in 1847, invented the kymographion, by means of which a graphic record secured by having a needle trace on a revolving smoked drum, was obtained. From that time on until 1896, when the Riva Rocci and Hill instruments were devised in which an encircling armlet enclosing an inflatable rubber bag, connecting with an inflating mechanism, which was in turn connected with a system of tubing in which a mercurial manometer was incorporated, various attempts were made, but without success, to obtain a satisfactory clinical instrument. These latter instruments proved satisfactory, but it was soon found that the armlet must be at least 12cm. in width to give accurate results.

Various makes of instruments are now on the market. The one I personally prefer is the Mercer, an inexpensive, portable and easily manipulated form of the mercurial type; and, as other forms are standardized by means of mercurial manometers, I carry it, although it is a little heavier than the dial type which is well represented by the Tycos. This instrument is light, takes up little space, and is accurate, but should be tested every so often by one of the mercurial type.

Two methods may be used in determining the pressure: the palpatory and auscultatory. In the first method, after the proper adjustments are made, the mercury column is run up until the radial pulse is obliterated, and then the air gradually released until the pulsations in the artery are perceived; this gives us the systolic point of pressure or maximum pressure, occurring when the aortic valves are open and just after the beginning of ventricular systole; it gradually diminishes to a minimum point, or the diastolic pressure, when the valves are closed and just before the beginning of the ventricular systole.

The walls of the vessels being most yielding at the diastolic point, we get greater oscillations in the column of mercury, or in the movement of the needle of the dial at this point. In many cases with the mercurial manometer, the diastolic point cannot be determined by inspection in this way, while in practically all cases it can be discovered with a dial instrument. In using the mercurial instrument some other way must be adopted. Korotkow,[1] in 1905, devised the auscultatory method, which has been quite generally adopted, and is the method I use.

Instead of palpating the artery below the compressing cuff, we apply the bowl of the stethoscope to the brachial artery at the bend of the elbow, and as we listen we allow the mercury column to run down from above the systolic point. Five phases can be made out as we reach the systolic point: 1. A sound not unlike the first cardiac sound; 2, this same sound plus a hissing murmur; 3, the murmur disappears and only the sound is heard; 4, the sound becomes suddenly very much muffled; 5, at the diastolic point is disappears. The average length of each phase, in order, is 14, 20, 5, 6 mm., a total of 45 mm. of pulse pressure as the difference between the systolic and diastolic points is termed. By adding one-third the pulse pressure to the diastolic pressure we get the mean pressure. For young adults, in the reclining posture, the average blood-pressure is maximal 110 mm., minimal 65; pulse pressure 45 mm. In general, the limits in normal individuals at rest are maximal 110 to 135 mm., minimal 60 to 90 mm., pulse pressure 30 to 45 mm.

FACTORS IN BLOOD-PRESSURE

There are four principal factors in the production of the blood-pressure: the muscular power of the heart (the vis a tergo), the elasticity of the vessel walls, the peripheral resistance and the volume and viscosity of the blood in circulation; all of which must be taken into account in pathological conditions.

During sleep there is a marked fall of blood-pressure, varying from 6 to 44 mm.,[2] the slight-

*Read before the Wayne Co. Medical Society, March 10, 1913, and Gratiot County Medical Society, Sept. 5, 1912.

1. Korotkow: Quoted by Norris: Internat. Clin. Ser. XXI, Vol. iv.
2. Brooks and Carrol: Jour. A. M. A., June 8, 1912.

est drop occurring in those whose pressure were the lowest in the beginning. The maximum fall is present two hours after the onset of sleep.

Otis[3] made one investigation of the effect on blood-pressure of physical exercise on a group consisting of fifty-nine men, six boys and thirty-two young women. It was found, in the majority of cases that exercise, whether excessive, severe and long continued, or more gentle and moderate, causes a rise in systolic blood-pressure—the maximum occurring some time during the effort. As fatigue sets in and advances, the pressure falls to normal or subnormal. A maximum systolic pressure is reached more rapidly in the case of a fatigued individual, but it is not nearly so extensive. If the exercise ceases at a time when the increased pressure exists, which is indicated by taking it immediately on stopping exercise, the return to normal takes place rapidly, generally within a comparatively few minutes. If the exercise ceases after the fall to subnormal has occurred, then the return upward to the normal is slower. Lowsley[4] says: "When the subnormal phase returns to normal within sixty minutes, the exercise may be considered as well within the hygienic limit for that individual; while a return to normal that is delayed beyond 120 minutes may be regarded as exceeding that limit." We then see that this physiological test gives us definite data by which to gauge the length and severity of exercise to be prescribed for either our convalescent or elderly patients.

However, it is in the rôle of internal medicine that the widest field for the use of this diagnostic aid is presented. As to the physiological limits of the blood-pressure without exercise, we[5] may say that at any age a systolic pressure above 145 mm., or a diastolic above 105 mm., should excite our suspicion and direct our attention to the possible causes for these phenomena. Insurance statistics[6] illustrate this forcibly. Of 2,668 applicants with a systolic pressure of 140-149 mm., eighty-one deaths were expected in a given period, and there were thirty-one deaths. Of 525 applicants with a blood-pressure of 150 or over, twenty-two deaths were expected and twelve died, a percentage of thirty-five above the average mortality for the same period. Of 772 applicants not insured with an average pressure of 171 mm., twenty deaths were expected, and there were thirty-two actual deaths, a percentage almost four times greater than the average of the company. These were all between 40 and 60 years of age. A low systolic is more favorable for 300 applicants with a systolic pressure of 100 and under, only three deaths occurred.

3. Otis: Am. Jour. Med. Sci., February, 1912.
4. Lowsley: Am. Jour. Phys., 1911, xxvii, No. 5, p. 46.
5. Norris: Univ. of Penn. Bull., April, 1908.
6. Fisher: N. Y. Med. Rec., Oct. 21, 1911.

HYPERTENSION

Hypertension is a symptom rather than a disease. Some of the diseases or conditions causing it are the following: nephritis, gout, arteriosclerosis, emphysema, plumbism, any condition causing increased cranial pressure, convulsive conditions, angina pectoris and exophthalmic goiter. By way of illustration of the helpfulness of this procedure, a few cases may be cited:

CASE 1.—Mrs. E. R. J., was seen in consultation with another physician June 23, 1912. She had a marked mitral regurgitation of rheumatic origin. The feet and legs were edematous; there was some puffiness about the eyelids; the bases of both lungs presented crepitant râles. The urine had been examined, only a slight trace of albumin and no casts were found. The question was, whether we were dealing with simply an incompensated heart; or, whether there was a kidney complication. On taking the blood-pressure it was found to be systolic 165 mm., diastolic 115 mm. We considered then that there must be a kidney complication. Some days later, the attending physician having left the case in my care while on a vacation, we found the urine loaded with albumin; and, coincident with it a fall in blood-pressure to systolic 125, diastolic 90, evidently due to the elimination with the albumin of a large quantity of pressor toxins.

CASE 2.—A case of arteriosclerosis in a man over 60, interstitial nephritis, who has suffered an attack of pulmonary edema, also attacks of edema of the lower extremities, formerly presented a blood-pressure running along about 160 mm. Lately, although the radials can be rolled like a cord under the fingers, his blood-pressure has fallen to 135 systolic, 90 diastolic, a change which usually occurs as the strength of the heart fails in the later stages.

CASE 3.—A case of plumbism in a young man, a painter by occupation; recently seen; gave a blood-pressure of 165 mm. systolic, with no diastolic phase.

By the latter expression, we mean that in certain cases, where using the auscultatory method, we still hear the thud with each arterial pulsation, even with the mercurial column down to zero. The presence of no diastolic phase is found in many cases of aortic regurgitation, and I have found it in a number of cases of acute infections and in typhoid fever; and, as the patient improves, the diastolic pressure will return to normal.

CASE 4.—A case of cerebral hemorrhage in a lady 55 years of age—who had a mitral regurgitation of long standing well compensated, with a blood-pressure usually 155 mm.—was found hemiplegic on the first visit, with a blood-pressure of 190 mm. In the evening, the pressure had mounted to 220 mm., and both sides were paralyzed. When next seen the blood-pressure was falling, the patient being in a dying condition.

CASE 5.—In contrast with this case, is one recently under observation in which the diagnosis was cerebral

embolism and thrombosis. Some months previously the blood-pressure was systolic 145 with no diastolic phase. During this illness, when first seen, the readings were: systolic 125, diastolic 55; while February 14, the day before her death, the readings were systolic 130, diastolic 60.

CASE 6.—A case of angina pectoris presented a systolic pressure of 160 mm. with a diastolic of 100 mm.

CASE 7.—In exophthalmic goiter, a systolic pressure of 160 mm. with a diastolic of 105 mm. was seen in one case.

CASE 8.—A case recently seen with symptoms of the passage of renal calculus, with spasmodic contraction of the muscles of the extremities, gave a blood-pressure of 160 mm. systolic, diastolic 100. The following day the symptoms subsided, the blood-pressure then being 110 systolic, diastolic 75.

In pregnancy, when albumin appears in the urine, or even before its appearance when nephritis supervenes, an elevation of the blood-pressure is found, and when abnormally high the patient should not be allowed to go to full term.

HYPOTENSION

Hypotension, on the other hand, we find especially in those who are weak and anemic. It is a constant feature in tuberculosis and may be a premonitory symptom. In a case of pernicious anemia seen this spring, the blood-pressure was systolic 88, diastolic 68. A case of typhoid fever, now under observation, showed a systolic pressure of 95, with no diastolic phase a few weeks ago. As improvement began the diastolic rose and now stands at 60. In diphtheria, scarlet fever, measles, acute rheumatism, and in most of the acute infectious diseases the maximal pressure usually falls below 100 during the fever. Heart diseases during the acute stages generally present a low pressure; but when hypertrophy develops, a moderately high pressure prevails. Hemorrhages lower blood-pressure, and this is a differential diagnostic point in typhoid fever from perforation in which a high pressure usually develops.

BLOOD-PRESSURE IN SURGERY

Thoms[7] emphasized the importance of recording the blood-pressure together with the pulse and respiration at five-minute intervals during operations. He used the Tycos instrument. The determinations and charting are put in charge of a surgical nurse, who does nothing else. In operations below the thorax, the pulse and pressure are taken at the arm and wrist. In work on the head, neck or thorax, the determinations are readily made at the foot of the patient; placing the apparatus around the ankle and using the dorsalis pedis artery for palpation. Any cutting operation causes an initial rise. When any of the large nerve trunks are irritated, a reflex rise occurs. When shock is becoming a dangerous factor, as shown by low blood-pressure, it is at once combated, and whether the patient reacts well after the operation can be graphically described by a charting of the pressure.

Enough has been said to show the great importance of the estimation of the blood-pressure. While it should not be considered except in relation to the other features of the disease in question, it may be the one point which, added to the others obtained by our usual procedures, may determine the diagnosis and treatment of an otherwise obscure case.

CONCLUSIONS

It is obvious from what has gone before that it is impossible to lay down general rules for the treatment of either hyper- or hypotension, as they are simply symptoms; and the treatment of the underlying cause is the matter of greatest importance. The key word to the treatment of conditions causing hypertension is usually elimination to get rid of the pressor toxins; while with hypotension a building up process is needed, or the direct combating of some infection.

We must necessarily conclude that no practitioner of medicine should be without a reliable sphygmomanometer. As an aid to diagnosis and as an agent to inform us of the progress of our cases, it has already been proven to be invaluable. The general improvement of the patient can be gauged by one other method in which the personal equation is eliminated—which means that a daily, or at least very frequent, taking of the blood-pressure should be performed. In this way, before elements in prognosis which can be detected by the patient and his friends become evident, the physician is cognizant of their presence, and there is nothing more satisfactory, even if the prognosis is a bad one, to the physician than to have been able to predict with certainty the outcome of a particular case. When you consider also the possibilities of differential diagnosis, as in the examples given above, between cerebral hemorrhage and embolism; between hemorrhage and perforation in typhoid fever; between a case of valvular disease of the heart without nephritis and one with the same, as well as in numerous other examples which might be cited, we believe that the use of the sphygmomanometer should be as frequent as that of the thermometer; and that in many cases the information gained by the former will be much more valuable than by the latter.

ADDITIONAL REFERENCES

Janeway: The Clinical Study of Blood-Pressure.
Hirschfelder: Diseases of the Heart and Aorta.

7. Thoms: Surg., Gynec. and Obst., Vol. xiv, No. 1.

SPECIAL ARTICLES

HERETOFORE UNPUBLISHED RECORDS OF THE MEDICAL SOCIETY OF THE TERRITORY OF MICHIGAN

EDITED BY
ALPHEUS F. JENNINGS, A.B., M.D.
DETROIT

(*Continued from page 223, April, 1913*)

CHAPTER XII.—MEETING OF 1830

"At a meeting of the Medical Society of the Territory of Michigan held at the house of Benj. Woodworth in the City of Detroit on Tuesday the 4th day of January, A. D. 1830, were present:

Dr. Stephen C. Henry, president.
Dr. Jno. L. Whiting, vice-president.
Dr. R. S. Rice, secretary.
Dr. M. Chapin, treasurer.

"The president called the Society to order and declared a quorum present. The roll was called and all the members were found absent except the above."

The president read to the society a case of fractured skull successfully treated by him and a case of presentation of the arm which resulted in a spontaneous evolution of the fetus, which was placed upon the files of the proceedings of the Society."

The Society then proceeded to the election of officers for the ensuing year, whereupon the following members were elected to the offices as follows, viz.:

Dr. S. C. Henry, president.
Dr. John L. Whiting, vice-president.
Dr. R. S. Rice, secretary.
Dr. M. Chapin, treasurer.
Drs. J. L. Whiting, M. Chapin, R. S. Rice, censors.

Dr. M. Chapin, treasurer, reported the state of the funds of the Society, which on motion was accepted and ordered to be filed.

Dr. J. L. Whiting rendered an excuse for non-attendance at the last meeting of the Society, which was on motion accepted.

The following resolution was presented by Dr. Whiting and adopted:

Resolved, That the treasurer be and is hereby instructed to commence suits, when this course be necessary, against such members of this Society as are indebted for initiation fees.

On motion, resolved that Dr. J. L. Whiting be added to the committee to revise the By-Laws of this Society, appointed at the annual meeting in 1829.

At a semi-annual meeting of the Medical Society of the Territory of Michigan, held at the house of Benj. Woodworth in the City of Detroit on Tuesday the 8th day of June, A. D. 1830, were present:

Dr. S. C. Henry, president.
Dr. J. L. Whiting, vice-president.
Dr. R. S. Rice, secretary.
Dr. M. Chapin, treasurer.
Drs. J. Rice, E. Hurd, T. B. Clark, members.

The president called the Society to order and declared a quorum present. The roll was called and all the members were found absent except the above named.

Dr. J. L. Whiting introduced the following resolutions, which were adopted:

Resolved, That the committee heretofore appointed to revise the By-Laws of the Society be instructed to determine also what alterations are necessary in the existing statutes regulating the practice of physic and surgery within this territory, and to procure such alterations to be made, if practicable, during the present session of the legislative council, and that they make report of their doings at the next annual meeting.

Resolved, That Elon Farnsworth, Esq., be and he is hereby appointed attorney for this Society, and that the secretary notify him of his appointment, under seal of the Society.

Dr. J. D. Davis was proposed, balloted for and unanimously admitted a member of the Society upon his signing the By-Laws, and paying the usual initiation fee.

Then the Society adjourned.

R. S. RICE, Secretary.

CHAPTER XIII.—THE MEETING OF 1831

At an annual meeting of the Medical Society of the Territory of Michigan, held at the Mansion House, in the city of Detroit, on Tuesday the 11th day of January, A. D. 1831, were present:

John L. Whiting, vice-president.
R. S. Rice, secretary.
M. Chapin, treasurer.
T. B. Clark, L. T. Jenny, members.

The vice-president called the Society to order and all members were absent except the above named.

The minutes of the last meeting were then read and the Society proceeded to the election of officers for the ensuing year; whereupon the following members were elected to the offices set opposite their names as follows:

Dr. Stephen C. Henry, president.
Dr. John L. Whiting, vice-president.
Dr. R. S. Rice, secretary.
Dr. Marshall Chapin, treasurer.
Drs. R. S. Rice, J. L. Whiting, M. Chapin, censors.

Lyman T. Jenny rendered an excuse for non-attendance at the meetings of the Society heretofore, which was deemed satisfactory, and on motion the fines due from said Jenny were remitted.

The committee heretofore appointed to revise and report the By-Laws reported said laws as amended, which were read, and the following resolutions adopted, viz.:

Resolved, That the report of the committee appointed to revise the By-Laws just read, be referred back to the same committee, who are hereby empowered to make suggestions of such further alterations, amendments or additions as to them may seem expedient, and make report of their doings at the next annual meeting. And further that the same committee be instructed to apply to the legislative council during the present session for such alteration as they may think to be requisite in the existing statutes regulating the practice of medicine and surgery within this territory.

On motion the Society adjourned.

Attest: R. S. RICE, Secretary.

At the semi-annual meeting:

Present: M. Chapin and R. S. Rice.

On this date a quorum not being present, the meet-

ing was adjourned to Tuesday the 28th day of June, present, at 10 o'clock a. m.

Attest: R. S. RICE, Secretary.

At a meeting of the Medical Society of the Territory of Michigan, holden pursuant to adjournment at the Mansion House in the city of Detroit the 28th day of June, A. D. 1831. Present:

J. L. Whiting, vice-president.
R. S. Rice, secretary.
M. Chapin, treasurer.
T. B. Clark, member.

The vice-president called the Society to order and the minutes of the annual meeting were read.

Upon the petition of Wm. Thomson, David L. Porter, Thaddeus Thomson and Ezra L. Parke, physicians and surgeons in regular standing in this Society for permission to organize a medical society in the county of Oakland;

Resolved, That the said Wm. Thomson, David L. Porter, Thaddeus Thomson and Ezra L. Parke be and they are hereby authorized and empowered to organize and establish a medical society in said county of Oakland, pursuant to the act, entitled "An Act to Incorporate Medical Societies, for the Purpose of Regulating the Practice of Physic and Surgery in the Territory," and that the secretary transmit a copy of this resolution to the physicians above named.

Then the Society adjourned.

Attest: R. S. RICE, Secretary.

CHAPTER XIV.—THE MEETINGS OF 1832-'33

At the Mansion House on Friday the 10th day of January, 1832, the day on which the annual meeting of the Medical Society should be held, pursuant to notice —there being but two of the members present, to wit: Dr. S. C. Henry, president, and R. S. Rice, secretary, the meeting of the same was adjourned to Tuesday the 17th, inst., at 10 o'clock at the place aforesaid.

Attest: R. S. RICE, Secretary.

At the Mansion House on Tuesday the 17th day of January, A. D. 1832, pursuant to the adjournment on the 10th inst., there being but two of the members present, to wit: Drs. M. Chapin and R. S. Rice, the meeting adjourned to Tuesday the 7th day of February next to meet at the place aforesaid at 10 o'clock a. m.

Attest: R. S. RICE, Secretary.

At the Mansion House on Tuesday the 7th day of February, A. D. 1832, pursuant to adjournment on the 7th day of January last, there not being a quorum of the members present the meeting was adjourned to the second Tuesday in June next. Present: J. L. Whiting, M. Chapin and R. S. Rice.

Attest: R. S. RICE, Secretary.

On the second Tuesday of January, A. D. 1833, at the Mansion House in the city of Detroit, there not being a sufficient number present to constitute a quorum of the Medical Society, the secretary and one member, to wit: Dr. M. Chapin, adjourned said meeting to the first Tuesday in February next, to meet at the same place at 10 o'clock a. m.

Attest: R. S. RICE, Secretary.

At an adjourned meeting of the Medical Society of the Territory of Michigan held at the Mansion House in the city of Detroit on Tuesday the fifth day of February, A. D. 1833, the president declared a quorum present and called the Society to order.

The roll of members was called and all were found absent except the following, to wit:

Stephen C. Henry, president.
J. L. Whiting, vice-president.
R. S. Rice, secretary.
M. Chapin, treasurer.
T. B. Clark, member.

The minutes of the last meeting were read, after which the following officers for the ensuing year were balloted for and declared by the president duly elected, to wit:

John L. Whiting, president.
Marshall Chapin, vice-president.
R. S. Rice, secretary.
Thos. B. Clark, treasurer.
T. B. Clark, M. Chapin, S. C. Henry, censors.

Treasurer of last year made his report upon which a balance was found in the hands of the treasurer of twenty and thirty-five one-hundredths dollars. On motion of Dr. Whiting said report was accepted.

On motion of Dr. Chapin:

Resolved, That the committee heretofore appointed to revise the By-Laws, etc., be discharged and a new committee of two be appointed.

Whereupon the president named Dr. J. L. Whiting and R. S. Rice as that committee.

On motion of Dr. R. S. Rice, Dr. Douglas Houghton was balloted for and admitted a member of this Society upon his signing the Constitution and paying five dollars.

On motion of Dr. Chapin the Society then adjourned sine die.

Attest: R. S. RICE, Secretary.

On the second Tuesday in June, A. D. 1833, there not being a quorum of members of the Medical Society present at the Mansion House, the Society was adjourned by Dr. Chapin and the secretary to the second Tuesday in January next.

Attest: R. S. RICE, Secretary.

CHAPTER XV.—THE MEETINGS OF 1834-'35

At an annual meeting of the Medical Society of the Territory of Michigan held at the Mansion House in the city of Detroit on the second Tuesday of January, A. D. 1834.

The president declared a quorum present and called the Society to order. The minutes of the preceding meetings were read. The roll of members were called and all found absent except John L. Whiting, Thomas B. Clark, Douglass Houghton and R. S. Rice.

The following officers were balloted for and the president declared them duly elected for the ensuing year, to wit:

Dr. J. L. Whiting, president.
Dr. D. Houghton, vice-president.
Dr. R. S. Rice, secretary.
Dr. T. B. Clark, treasurer.
Drs. D. Houghton, T. B. Clark, R. S. Rice, censors.

On motion of Dr. Clark, Dr. Houghton was added to the committee to revise the By-Laws and procure such alterations and amendments to the laws of the territory, regulating the practice of physic and surgery as are required, and make report at the next semi-annual meeting of the Society.

Dr. Robert McMillan was proposed as a member.

Then the Society adjourned.

Attest: R. S. RICE, Secretary.

At an annual meeting of the Medical Society of the Territory of Michigan, held at the Steam Boat Hotel in the city of Detroit, on the second Tuesday of January, A. D. 1835. Present:

Dr. Houghton.
Dr. M. Chapin.
Dr. T. B. Clark.
Dr. R. S. Rice.

The president being absent, Dr. Houghton as vice-president called the Society to order.

The roll was called and all the members were found absent except those above mentioned.

The minutes of the last meeting were then read and the Society adjourned to Tuesday the 20th inst., at the same place at 10 o'clock a. m.

Attest: R. S. RICE, Secretary.

Tuesday, January 20th, 1835.

On this day there not being any members present except the secretary and Dr. Houghton, the Society was adjourned pursuant to a by-law of the same to the second Tuesday in June next.

Attest: R. S. RICE, Secretary.

At an adjourned annual meeting of the Medical Society of the Territory of Michigan held at the Ameriean Hotel on the second Tuesday of June, 1835.

The Socicty was called to order by the president, the roll was called and Dr. J. L. Whiting, T. B. Clark, E. Hurd, H. Loomis and J. D. Davis answered to their names. The minutes of the last meeting were read, and on motion the following physicians were balloted for and admitted as members upon their signing the Constitution and paying the initiation fee, to wit: Dr. J. L. Porter, Dr. J. P. Fay, Dr. J. R. Herman, Dr. D. L. King, Dr. D. O. Hayes, Dr. E. M. Cowles and Dr. Robt. McMillan.

On motion the Society proceeded to elect their officers for the ensuing year, whereupon

Dr. J. L. Whiting was elected president.
Dr. J. D. Davis, vice-president.
Dr. R. S. Rice, Secretary.
Dr. Robert McMillan, treasurer, and
Drs. Chapin, Hoyt, Clark, Davis and Houghton, censors.

Dr. Clark stated that he was not prepared to report as treasurer in consequence of the absence of Dr. Chapin, his immediate predecessor, being absent and still retained the funds and books; but reported the amount of thirty-five dollars in the treasury in cash and some notes, the amount unknown.

Then the Society adjourned.

Attest: R. S. RICE, Secretary.

At a semi-annual meeting of the Society of the Territory of Michigan held at the American Hotel on the second Tuesday of June, A. D. 1835, the president, Dr. J. L. Whiting, called the Society to order. The roll was called and Drs. Rice, Clark, Hurd, Loomis, Davis, Fay, Herman, Hoyt, Cowles and McMillan answered to their names.

The minutes of the last meeting were read, and the Society proceeded to business.

Resolved, That the president be and he is hereby authorized to issue warrants on the treasury for such sum or sums of money as may be due for advertising meetings of the Society.

On the petition of Hubbel Loomis and others (see files) for the privilege of establishing a medical society in the county of St. Joseph, ordered that the same be and it is hereby granted.

On motion of Dr. Hurd the committee heretofore appointed to revise the By-Laws of the Society were discharged. A new committee was then on motion appointed by the president to consist of five for the revision of the By-Laws to report at the next regular meeting. The said committee as named by the president were Drs. McMillan, Hoyt, Davis, Loomis and Herman. Then the Society adjourned.

Attest: R. S. RICE, Secretary.

CHAPTER XVI.—THE MEETINGS OF 1836-'37

At an annual meeting of the Medical Society of the Territory of Michigan held at the "Michigan Exchange" in the city of Detroit on the second Tuesday in January, A. D. 1836.

The president declared a quorum present and called the Society to order, the roll being called the following members answered to their names, viz.: Houghton R. S. Rice, Chapin, Hurd, Hoyt, McMillan and Clark.

The minutes of the last meeting were read, and the Society proceeded to ballot for officers for the ensuing year, and the following persons were elected, to wit:

Marshall Chapin, president.
D. V. Hoyt, vice-president.
R. S. Rice, secretary.
Robt. McMillan, treasurer.
Drs. Cowles, McMillan, Hoyt, Houghton and R. S. Rice, censors.

The committee appointed to revise the By-Laws of the Society reported that they had not been able to complete the task assigned them and were on motion discharged.

Dr. McMillan, treasurer, filed his report, which was accepted and ordered to be filed.

The petition of L. T. Jenny and others, physicians in regular standing, for permission to establish a County Medical Society in the County of Macomb:

Resolved, That permission be and is hereby granted according to the prayer of said petition to statute in such cases made and provided.

WHEREAS, A petition has been forwarded from the County of Monroe for permission to establish a county society, which petition does not appear on the files;

Resolved, That permission be and is hereby granted to establish a medical society in said county, upon the filing another petition, according to the statutes.

On motion of Dr. Houghton; *Resolved*, That the secretary be and he is hereby instructed to publish the names of all physicians and surgeons that have been licensed to practice the same, by this Society.

On motion of Dr. Clark; *Resolved*, That the name of J. C. White be omitted in the list to be published by the secretary of physicians and surgeons as licensed by this Society.

Then the Society adjourned.

Attest: R. S. RICE, Secretary.

Tuesday, January 10th, 1837.

On the second Tuesday in January there not being a quorum of members present, the Society stands adjourned to Tuesday next at 10 a. m. by the president, secretary and one member, present.

At an adjourned meeting of the Medical Society of the State of Michigan held at the "Michigan Exchange" in the city of Detroit.

The president declared a quorum present and called the Society to order. The minutes of the last meeting

were read and the roll of members being called the following were found present: Dr. E. Hurd, Dr. R. McMillan, Dr. E. Pitcher, Dr. M. Chapin, Dr. D. V. Hoyt, Dr. D. Houghton and Dr. E. M. Cowles.

The following officers were balloted for and the president declared them duly elected:

Dr. D. V. Hoyt, president.

Dr. R. McMillan, vice-president.

Dr. E. M. Cowles, secretary.

Dr. E. Hurd, treasurer.

Drs. M. Chapin, E. Hurd, E. Pitcher, R. McMillan, E. M. Cowles, censors.

Dr. Terry was proposed as a member.

Voted that the treasurer be directed to pay G. Whitney five dollars for publishing notice.

On motion of Dr. Pitcher voted that the treasurer be directed to collect the notes and accounts due the Society.

E. M. COWLES, Secretary.

June 13, 1837.

The semi-annual meeting of the State Society of Michigan was held at the American Hotel in the city of Detroit. Dr. J. L. Whiting was chosen president pro tem.

The minutes of the last meeting were read and on calling the roll the following members were present: Drs. R. S. Rice, E. Pitcher, J. L. Whiting, E. Hurd, D. Houghton and E. M. Cowles.

Upon the petition of Darwin Littlefield and other physicians and surgeons in regular standing in this Society for permission to organize a medical society in the county of Branch;

Resolved, That the said Darwin Littlefield and Hiram Alden, M. Randall, Wm. Nonechett, Thos. Calkins, be and they are hereby authorized and empowered to organize and establish a medical society in said county of Branch pursuant to the act entitled "An Act to Incorporate Medical Societies for the Purpose of Regulating the Practice of Physic and Surgery in the State of Michigan" and that the secretary transmit a copy of this resolution to the physicians above named.

Drs. H. P. Cobb, Edward Spring, Abrm. Sager, J. B. Scovil, G. B. Russell and Lucius Abbot he proposed and balloted for as members of this Society, and

The Society adjourned.

E. M. COWLES, Secretary.

CHAPTER XVII.—THE MEETINGS OF 1838-'39

At the annual meeting of the Medical Society of the State of Michigan, held at the American Hotel in the city of Detroit, on the 9th day of January, 1838. A quorum being present. Dr. J. L. Whiting was chosen president pro tem.

The minutes of the last meeting were read and the roll of members being called, the following were found present: Drs. Whiting, Pitcher, Rice, Houghton, Cowles, Spring, Russell and Scovil. The following officers were balloted for and declared elected by the president:

Dr. L. Pitcher, president.

Dr. Houghton, vice-president.

Dr. J. B. Scovil, secretary.

Dr. G. B. Russell, treasurer.

Drs. Pitcher, Rice, Russell, Spring, Scovil, censors.

Dr. Rufus B. Bement of Washtenaw, Dr. Thomas C. Adams of Lenawee, and Michael A. Patterson were proposed as members of the Society.

Drs. Rice, Pitcher and Spring were appointed a committee to report a revision of the By-Laws of this Society, and report at the next annual meeting. Resolved, that each member of this Society be requested to hand in a question on some medical subject to the president within one week from this day, and he to select some one of them for discussion at the next semiannual meeting in June next.

Resolved, That Dr. E. Hurd, late treasurer, be and is hereby directed to report forthwith the state of the funds of the Medical Society of the State of Michigan to Dr. G. B. Russell treasurer elect.

Resolved, That the thanks of the State Medical Society be presented to Drs. J. G. Cornell, of the County of Jackson, and Hiram Alden, of Branch County, State of Michigan, late members of the House of Representatives of this State, for their firmness in defending the privileges of their professional associates against the encroachments of presuming ignorance, and that disorganizing spirit which seeks to annul all vested rights, even at the sacrifice of life, as well as the rights of persons and property — admitted as honorary members of this Society, and to be notified by the secretary.

The above proceedings to be published.

J. B. SCOVIL, Secretary.

At an annual meeting of the Medical Society of the State of Michigan held at the National Hotel on the 9th day of Jan., 1839. The president having taken the chair called the meeting to order and declared a quorum present. The minutes of the last meeting were read and the roll of members being called the following were found present. Drs. Pitcher, Rice, Cobb, Terry, Spring and Scovil. The following officers for the ensuing year were balloted for and declared duly elected by the president:

Dr. L. Pitcher, president.

Dr. E. Spring, vice-president.

Dr. J. B. Scovil, secretary.

Dr. R. S. Rice, treasurer.

Drs. Cobb, Terry, Rice, Russell, Spring, censors.

The treasurer being absent no report was made by him. The following amendments to the By-Laws were submitted to the Society and adopted:

In Section 6 strike out "Territory" and insert State. Strike out all of Sections 9, 13 and 14, and in Section 18 the first three lines to the word "before," also all of Sections 21, 25 and 26. The word "five" inserted in place of three in Section 1.

The following resolutions were submitted and adopted:

1. That we deeply regret the necessity of recording on our minutes the death of our late associate and former president, Dr. M. Chapin, and that our condolences are sincerely offered to the friends and family of the deceased.

2. *Resolved*, That arrearages for fines, and the annual tax due this Society previous to this meeting, be and they are hereby remitted in full.

3. *Resolved*, That Dr. Ebenezer Hurd be and is hereby expelled as a member of this Society for improper conduct as treasurer thereof.

4. *Resolved*, That the secretary be and is hereby directed to communicate the foregoing resolution to Dr. Hurd.

5. *Resolved*, That the question published for discussion in June next be taken up at our next regular meeting. A committee of three were appointed to

report on the question for discussion in June next. Committee — Drs. Terry, Cobb and Spring. By resolution the expenses of the meeting were paid by the treasurer.

Adjourned to June next.

Attest: J. B. SCOVIL, Secretary.

At the semiannual meeting of the Medical Society of the State of Michigan held at the National Hotel on the 11th day of June, 1839, Dr. Rice, president pro tem., having taken the chair, called the meeting to order and declared a quorum present. The minutes of the last meeting were read and the roll of members being called the following were found present: Drs. Rice, Houghton, Terry, Russell, Whiting and Scovil.

Received an appeal of R. B. Chase from the Washtenaw County Medical Society, which appellant had leave to withdraw. The subject for discussion at the semi-annual meeting was postponed to January next to receive the report of the committee. Committee to report on said subject — Drs. Cobb, Terry and Sager. Adjourned to the second Tuesday in January, 1840.

CHAPTER XVIII.—THE MEETINGS OF 1840-'41

At an annual meeting of the Medical Society of the State of Michigan held at the National Hotel, January 9, 1840, there not being a quorum present the meeting stood adjourned to the second Friday in June.

Attest: J. B. SCOVIL, Secretary.

There being no notice given for the semiannual meeting and no quorum present the meeting stood adjourned to the second Tuesday in January.

Attest: J. B. SCOVIL, Secretary.

At an annual meeting of the Medical Society of the State of Michigan held at the National Hotel, Jan. 12, 1841, there not being a quorum present the meeting stood adjourned to the second Tuesday in June.

Attest: J. B. SCOVIL, Secretary.

At a special meeting of the State Society of the State of Michigan, pursuant to a request and notice according to the By-Laws of the same, at the office of Dr. R. S. Rice in Detroit, on Saturday, July 29, at 3 o'clock p. m., the following were present: Dr. Z. Pitcher, president, Dr. G. B. Russell, Dr. T. B. Clark and Dr. H. T. Cobb. The meeting being called to order and the By-Laws not admitting any business to be transacted other than of a special character, the Society adjourned to the regular time in January next.

R. S. RICE, P. T.

CHAPTER XIX.—THE MEETINGS OF 1849-'50

At a regular meeting of the State Medical Society of Michigan, held at the office of Dr. R. S. Rice, Jan. 16, 1849, the following gentlemen were elected as officers for the ensuing year:

Dr. Lima Pitcher, president.
Dr. Abram Sager, vice-president.
Dr. R. S. Rice, treasurer.
Dr. J. B. Scovil, secretary.
Drs. Terry, Cobb, Rice, Russell, censors.

On motion the following two gentlemen were elected members of this Society:

N. K. Maneates of Marshall.
Moses Gunn of Ann Arbor.

On motion the Society adjourned to Saturday, Jan. 26, 1849.

Attest: J. B. SCOVIL, Secretary.

Adjourned meeting of the State Medical Society held Saturday, Jan. 26, 1849.

Present, Drs. Pitcher, Cobb, Russell and Rice.

On motion a committee consisting of Drs. Russell, H. P. Cobb and Rice were appointed to revise the By-Laws of the Society and report at the next adjourned meeting a system of medical ethics.

On motion the Society adjourned to Saturday, March 31, 1849.

R. S. RICE, Secretary P. T.

At an adjourned meeting held March 31, 1849, there being no quorum present, the meeting adjourned to Saturday evening, April 7, 1849.

Attest: J. B. SCOVIL, Secretary.

Adjourned meeting held Saturday evening, April 7. On motion Dr. Russell was excused as one of the committee on By-Laws and Dr. Scovil added to the committee.

Adjourned to next semi-annual meeting, the second Tuesday in July next.

Attest: J. B. SCOVIL, Secretary.

At the semiannual meeting held July 2, 1849, there being no quorum present the meeting adjourned to the next annual meeting, the second Tuesday in January, 1850.

Attest: J. B. SCOVIL, Secretary.

Annual meeting of the State Medical Society of Michigan, held pursuant to notice at the office of Dr. S. R. Rice, a quorum being present. The minutes of the last meeting being read, on motion were amended so as to include and accept the treasurer's report of $37 then in his hands.

The following gentlemen were elected officers for the ensuing year:

Dr. L. Pitcher, president.
Dr. A. Sager, vice-president.
Dr. R. S. Rice, treasurer.
Dr. J. B. Scovil, secretary.
Drs. Cobb, Russell, Terry, Rice, censors.

Treasurer's report adopted. Balance in hand, $26.

On motion Dr. Isaac Paddock of Pontiac, and Dr. Richard Inglis of Detroit, were elected members of this Society.

Meeting adjourned to the fourth Tuesday in January, 1850, at 3 o'clock p. m.

At an adjourned meeting of the Michigan State Medical Society held January 28, the report of the committee to revise the By-Laws of this Society were received and adopted.

Resolved, That Drs. Tripler and Dr. H. P. Cobb be and are hereby appointed delegates to the National Convention to be held at Cincinnati in May next, and that the secretary be authorized, in the event of the said delegates, or either of them being unable to attend, to accredit others to attend in their place.

J. B. SCOVIL, Secretary.

The secretary pleads guilty of not giving notice two weeks before the semi-annual meeting, which was consequently passed by.

J. B. SCOVIL, Secretary.

At the annual meeting of the State Medical Society of Michigan, held pursuant to notice, Jan. 14, 1851, at the office of Dr. J. B. Scovil, a quorum was present.

The minutes of the last meeting were read.

Drs. L. Pitcher and A. B. Palmer reported as having attended the National Convention held at Cincinnati the first Tuesday in May, 1850, and submitted the printed transactions of the association.

Received a note from Dr. J. Paddock acknowledging his election as a member of this Society. The following gentlemen were elected officers for the ensuing year:

Dr. L. Pitcher, president.

Dr. J. Paddock, vice-president.

Dr. R. S. Rice, treasurer.

Dr. J. B. Scovil, secretary.

Drs. G. B. Russell, H. P. Cobb, R. S. Rice, A. R. Terry, Abr. Sager, censors.

Treasurer's report accepted, $26 in hand.

Drs. L. H. Cobb and W. Brodie were elected members of this Society. On motion Drs. Russell, Rice and Pitcher were appointed a committee from this Society to attend the next examination of candidates for M.D. at the university. Dr. Pitcher read an interesting paper on Delirium Tremens, supposed to be induced by an excessive use of tobacco. Adjourned to semi-annual meeting the second Tuesday in June.

J. B. SCOVIL, Secretary.

(To be continued)

Miscellany

DIAGNOSIS OF PERITONEAL EFFUSIONS

With the patient lying on his back in peritoneal effusions of moderate or small quantity, there is always fulness of the flanks, the degree of fulness depending not only on the quantity of fluid, but also on the relaxation and thinness of the abdominal wall. If the abdominal wall is relaxed there is always more or less flattening of the abdomen anteriorly; if the walls are tensely distended this appearance is obscured. If there is much subcutaneous fat the fulness is even more greatly obscured; edema will also obscure it.—A. McPhedran in the *Canadian Medical Association Journal.*

AN APPLICANT FOR HOSPITAL INTERNSHIP

.....July 28, ... 8:30 A. M.

Dr. ..... Pres.

.....Hospital,

....., Mich.

My Dear Doctor .....:

You having been commended to me I assure you it is with great pleasure I say few words to you. For a long time it has been impressed on my Mind I would love to get into Hospital work being healthy and Strong thank God I would work night or day both at times if needed. Pleases Doctor do you have a place for me. As I write my English Heart longs to be with YOU. I have been practicing for many years general practice. Besides being a general practiner am also a Specialist in Eye-Ear-Nose and Throat, also in the 20 diseases of Rectum to which we are all liable and many diseases of the bladder (Optician) and pardon me when I say I am by Gods Help and hard work on my part a Pharmacist: clerked in 3 drug stores wher proprietors not registered. Please doctor do not think I am boasting—no I am every day thankful to God from a love to Study and Love to Work. I am healthy and Strong and a loving happy companion. Have no Habits at all that is hurtful to my body or against Gods Commands. Lecture on health and talk for Our Creators cause at times. I lived in that lovely country many years.

If you have no Place for me do you know where there is a place outside of Hospital for such a Man as above teaches.

Faithful to all,

Dr. .....

[The recipient of this letter did not have a vacancy for this applicant and the letter has been forwarded to THE JOURNAL for publication thinking that some of our hospitals may desire the services of this applicant.—EDITOR.]

OF THE MAKING OF QUACKS

Chiropractic Spondylotherapy! This classic mouthful of syllables appears at the top of a card issued by a Detroit "doctor." It scans like poetry. It has a rise and fall of sound at once brisk and noble. It could be set to ragtime and sung trippingly. But its meaning is scarcely up to its meter, since it is the ingeniously invented name of the newest form of medical malpractice. "A Drugless Science which removes the cause of disease," its exploiters call it, and on this basis they conduct two fake colleges in Michigan. Manipulation of the spine is its alpha and omega. All human ills, according to its creed, arise from a distorted spinal column. The wart on your nose and the corn on your toe are alike referable to an erring backbone. The chiropractor juggles your joints, and thereby cures you of the following troubles:

Paralysis, deafness, loss of voice, lumbago, catarrh, gallstones, overweight, rheumatism, appendicitis, neuralgia, neurasthenia, eye, ear, throat, lung, stomach, liver, heart disorders, diabetes, bronchitis, asthma, la grippe, dropsy, eczema, goiter, fevers, epilepsy, insanity, St. Vitus's dance, kidney and bladder troubles, etc., all cancers, tumors, etc.

That, considering the all-embracing "etc.," is a fairly comprehensive claim. One might well suppose that our old friend, Liquozone, had sprung into activity and print again. In the pamphlet issued by this cult, the term "Chiropractic" is duly explained as a "combination of two Greek words, meaning to do by hand." Spondylotherapy is not explicated in the text; but, summoning up all our classic lore, we hazard a guess that it derives from the Greek root which has given us that expressive, if inelegant term, "spondulics," the love of which is said to be the root of all evil, and from "therapy" the science of healing or relief. Hence it would appear, etymologically, that a Spondylotherapic Chiropractor is a gentleman who, with expert hand, relieves you of your surplus cash painlessly while you wait. Meantime the colleges flourish and turn out their regular crop of quacks under the easy laws of Michigan.—*Collier's Weekly, April 12.*

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

MAY

Editorials

THE GOVERNOR'S APPOINTMENTS

NEW MEMBERS OF THE STATE BOARD OF REGISTRATION IN MEDICINE

Through the kindness and courtesy of Governor Feriss, THE JOURNAL is privileged to make the following announcement of the names of the men whom the Governor will appoint as members of the State Board of Registration in Medicine:

Dr. G. W. Nafe, Fremont, eclectic.
Dr. Albertus Nyland, Grand Rapids, physiomedico.
Dr. George Lefevre, Muskegon, homeopath.
Dr. W. T. Dodge, Big Rapids, regular.
Dr. C. B. Burr, Flint, regular.

We congratulate the Governor on his selection of these able and representative men. The public is assured that their's as well as the profession's interests will be safeguarded and protected through the work of these appointees. Further comment is unnecessary.

PITUITARY EXTRACT VERSUS FORCEPS

The percentage of morbidity and mortality following confinements are still too high as compared to other forms of surgery. This is undoubtedly due to a lack of proper aseptic technic and, in addition to this, to manipulative or instrumental deliveries. A perfect asepsis in a home involves more expense and trouble than most of the profession are willing to assume. It is generally conceded that instrumental delivery adds greatly to the danger to the woman by increasing the opportunities for introducing infection and also by increasing the number of abrasions through which this infection may enter the body.

We have not only to consider the woman with reference to lacerations and infections, but also the babe must be kept in mind as well. We must think of the compressed brains, the paralysis of facial and brachial nerves, the fracture of bones, the compression of cords and of skin abrasions with possibility of infection. Perhaps most women are confined by those who do little or no surgery and yet who have to do the forceps operations—often without adequate preparation or assistance. This fact, coupled with the relatively infrequent and therefore possibly unskilled use of the forceps, adds to the danger.

With these conditions in mind we will welcome any means which will accomplish the same results as forceps and which will, at the same time, involve less danger to the mother and babe. Pituitary extract gives promise at this time to serve such a function. Humpstone reports its use in sixty-four cases without any bad effects. He states, however, that in a small percentage of these cases no effect whatever was obtained. He used an initial dose of 4 c.c. and in some cases repeated this amount.

Pituitary extract given to a woman with a dilated cervix, but in whom the powers have failed, will in most cases cause her delivery in thirty or forty minutes. The pains will, in about five minutes, increase in frequency from five or six minutes to one or two minutes. They will retain their rhythmical character and their force will be increased. The effect of the drug, in some cases, will subside in about three hours; the patient will respond equally well to a second dose. It has changed false into true pains, even when given during an interval of quiet. It has dilated a cervix where the natural pains were inefficient in even starting the dilatation. It seems to prevent rather than increase the danger of post-partum hemorrhage.

De Lee states that 75 per cent. of all forceps operations are due to uterine inertia. If then, we find in pituitary extract that which will overcome uterine inertia, this subject at once assumes extraordinary importance. It will mean that three out of four forceps operations can be avoided. It will mean that we will have one chance of infection where now there are four. It will mean that cases indicating forceps can be delivered safely even in unfavorable surroundings and by the average physician. It will mean that the simple, easily carried and easily operated hypodermic syringe will largely replace the more cumbersome and more dangerous forceps. Not only this; it will mean the avoiding of hours of painful expectancy—which we now utilize rather than to apply forceps and bring about expulsive uterine contractions.

Pituitary extract is a relatively new drug in the field of obstetrics and the reports are at this time meager; from these reports, however, which are available, and from personal communication with those who have employed pituitarin, one is warranted in the conclusion that it should be tried out more extensively than has been done. If it proves to be as useful to the profession at large as it has in the hands of the few who have used it, this drug will undoubtedly become an important factor in the reduction of puerperal sepsis.

C. E. B.

ADVANCES IN MEDICAL EDUCATION

Within the last ten years there has been a marked advance in medical education in this country, so that the best medical schools in the United States now compare favorably in equipment and in curricula with those of the most advanced nations of Europe. This work has been accomplished largely through the efforts of the Council on Medical Education of the American Medical Association, aided by the examining boards of various states, and by the most enlightened men throughout the profession. Ten years ago there were more than one hundred and sixty medical schools in this country, in most of which there were practically no requirements for admission. Many of these schools had no adequate equipment, and gave short and imperfect courses. Now the number of medical schools has been reduced to 117. There are still about forty for which there is no adequate reason for existing. In several states the requirement for admission to examination for the practice of medicine has been advanced so that only graduates of the best schools can practice in these states. The number of states joining this list is gradually increasing, and many of the poorer schools still in existence must either improve or must go out of existence.

Medical education is now demanding higher standards than are now required by any other profession. A graduate of the Grand Rapids High School goes to the university with the intention of studying medicine. He must spend two years in the department of literature, science, and the arts, and during these two years he must show himself to be an excellent student, above the average. At the expiration of this time, provided his work has been satisfactorily done, he enters the medical department, and continues here for four years. It is therefore six years from the time that he leaves the high school before he can begin the practice of his profession. Moreover, most of these students take an extra year in hospital work. Within a few years this will probably be a requirement, making seven years before the young man can get into his active work after he leaves the high school. By establishing these high standards the medical profession is attracting the brainiest men and women to our profession.

It is true that the financial inducements to go into medicine are not great compared with the rewards which may be obtained with the expenditure of the same amount of time and energy in other professions, but money is not the highest motive which moves the best men. It must come to pass that medicine will demand and will receive the respect and admiration of the best in all callings of life.

The opportunities for work in preventive medicine are growing greater and more alluring every day. It was said by Descartes more than two hundred years ago that the regeneration and elevation of man is to be secured through preventive medicine, and this statement is becoming more and more evidently true every year. There is a bill before the legislature of the state of Michigan now, providing for dividing the state into sanitary districts and the appointment of a competent medical man in each, who will give all of his time and energy to the prevention of disease. The law provides a fairly good living salary.

It is interesting to note that for the first time in the history of this country the Governor of a great state, Governor Sulzer of New York, has issued a proclamation on public health. This is the first time so far as we know that any governor has deemed this matter of sufficient importance to issue such a document. The recommendations made by Governor Sulzer are much the same as those of the Amberson bill now before the Michigan legislature. Governor Sulzer recommends

that the state of New York be divided into sanitary districts, and that in each a competent medical man be appointed at a good living salary, and that he be expected to give all of his time to the prevention of disease. Enlightened people are beginning to realize that public health is the greatest asset which the state may have. Whether the bill before the legislature of this state passes or not, it or something similar will quite surely be enacted some time in the near future. The medical profession must be prepared to supply men of the highest grade physically, mentally and morally for this work. It will be the duty of the sanitary officers of these districts not only to prevent microbic disease, but to study feeblemindedness, insanity, sexual obliquity, and every condition which tends to the debasement of the race. Certainly there promises to be a great future for enlightened medicine in this country.

V. C. V., SR.

LEGAL DEFENSE

Our general attorneys predict an increase of threats against physicians because of the lessening of litigation by the enactment of the employers' liability law. "The hungry lawyer, looking for business, will pick on the doctor and the saloonkeeper as the two vulnerable classes of citizens." The opinion above expressed surprised me at first, for I have been looking for a decrease of threats against us as a result of the added care on the doctor's part and a certainty that his claim would not be contested on the lawyer's part. But, as I think about the matter and study the threats reported to me, I incline to their opinion. We may have a year, or several years, of increased litigation against physicians until we can demonstrate more generally that the members of the state society are defended and will not compromise a blackmail suit or threat.

During the first three months of 1913, seventeen threats have been reported to me and not one has a legitimate legal basis. There are four threats arising from obstetrical cases claiming a laceration or a pain in the back followed, for which the doctor is responsible. Two men were sued because in operating on an appendiceal abscess the appendix was not removed. Three men are jointly threatened because subsequent to an extensive operation on the ethnoid and frontal sinuses with a secondary operation in another city, a small fragment of drainage gauze came from the wound. There is one suit alleging pain and swelling following an intravenous injection of neosalvarsan. In an extensive operation for carcinoma of the breast, a pair of small artery forceps slipped into the axillary fossa and were not discovered until a subsequent dressing. The threat is based on the fact that the forceps were left in, and not that any special damage resulted therefrom. Another threat is from a disgruntled husband who took his wife to a doctor for a thorough examination and later complains because a bimanual examination of the pelvic viscera was made, without consent, although he was in the room during the whole proceeding. There is no one of these cases where, from the professional viewpoint, any blame is justly attached to the doctor, and I think this view will be taken by any court which may have to pass on them.

It appears then, that extremely trivial pretexts are being sought on which to base threats against the profession and it behooves us to be on our guard, with added care in our work to avoid, so far as possible, any basis for either just or unjust criticism. We must also avoid criticism of the work of others, which often arouses unwarranted dissatisfaction where it did not previously exist.

FRANK BURR TIBBALS,
Chairman, Medicolegal Committee.

THERAPEUTICS *

In perusing the programs of the county societies of our state and those of other states, we have noticed the absence of papers bearing on the use and indications of drugs and other therapeutic agents. The time was when papers on "The Use of Veratrum Viridi," "The Indications and Action of Digitalis," and similar subjects bearing on purely materia medica and therapeutics, occupied prominent positions on the programs of medical meetings and were attended with active discussions. Recently they have become less in number and we are acquainted with societies which have not had a paper on drugs or therapeutics for a period of two or three years. We may well ask: Why is this? The reason is obvious. "Formerly the basis of all therapy was empiricism, and empiricism only." Times changed, and with the change there was developed a metaphysical reasoning which gave rise to the development of many of the new schools and "cults."

Again, the teachings of the times changed and with the new light that was brought to bear on the etiology and pathology of disease, a period of therapeutic nihilism became manifest. Our great

*The thought for this editorial was secured from Forchheimer's "Therapensis of Internal Diseases," published by D. Appleton & Company. The quotations are taken from this valuable publication.

clinicians declared that our drugs had no potency in either preventing or limiting, or in curing a given symptom or disease; that rest in bed, hygienic surroundings, a few remedies exhibited for pain and catharsis were the only indications for the interference in any disease or illness.

Again, as times and customs changed, "physiology, pathology, chemistry, microscopy and physics, as applied to medicine, were being developed and therapeutical problems were being solved by laboratory methods." With such an attitude existing, there was generated a greater tendency to more accurate observation of symptoms and disease. With such an attitude, greater attention was being directed to the physiological effects of drugs, and medical therapeutics took on new life and received a new impetus. It was the period that gave birth to scientific medical therapeutics: "The result of observation plus reasoning."

To-day, therapeutics as a science and an art is beginning to assume its proper place in medical science. Although its present-day teachings are still in their infancy, we have every reason to believe that the near future will see it assume a more definite and still greater scientific status. The advances that have been made in the past few years have been in the line of prophylaxis and specific therapy. The physiological action of the drug is no longer the only indication for its administration; the scientific prescriber is demanding therapeutic effect on pathological states and conditions. Specific causes of disease are sought for and specific methods of treatment are applied.

"Formerly there were but two specifics: mercury and quinin." To-day many of our infections diseases are combated by a large number of specifics in the form of vaccination and serotherapy. More recently there has arisen a new light, and by it we see new and important factors in the causation of disease: "One which promises much for therapeusis — namely, physical chemistry and the development of organotherapy."

We again note that physical methods are receiving renewed attention; "hydrotherapy, balneology, massage and gymnastics, mechanotherapy, electrotherapy and *x*-ray therapy are being more frequently employed." Hospitals are providing space and apartments for their administration and their usage is no longer being delegated to the osteopath and chiropractic and similar cults, who, in their narrow-minded, myopic-visioned, bigoted state, claim for them the specific "cure-all" property for all symptomatic and pathologic conditions. "Nutrition and dietetics have been put on a scientific basis and psychotherapy is being applied in a rational way for definite purposes."

With this brief sketch of the evolution that is taking place in the field of therapeutics, we may feel safe and warranted to prophesy that the treatment of internal disease is becoming of more and greater importance. Therefore, it behooves one desirous of remaining abreast of the times to perfect himself not only in the pathology and pathogenesis and symptomatology of disease, but also in the present-day teachings of scientific therapeutics, the recent developments in which well deserve a more prominent place on the programs of our medical meetings.

DUES

In compliance with the instructions of the House of Delegates and the Council, this issue of THE JOURNAL contains a full list of the members of the Michigan State Medical Society who are in arrears with their 1913 dues.

The records of the society show a membership of 2,290. Eighteen hundred and eighty-one members have paid their 1913 dues and are in good standing and entitled to all the benefits accruing from membership. Four hundred and nine members have neglected to pay their 1913 dues. Unless their dues are received in this office on or before May 10, their names will be transferred to the suspended list; their JOURNAL will be discontinued; they will be denied the protection of the Medicolegal Committee in any action brought against them for services rendered during their period of suspension; they will be reported to the secretary of the American Medical Association as dropped for non-payment of dues.

We are of the opinion that not one of these members desire that their membership shall be permitted to thus terminate. The reason for their being in arrears, in most instances, may be attributed to simple neglect and failure to send their remittances to their county secretary. They do not want and they cannot afford to permit their membership to lapse. Much as the society needs them they need the society more. They cannot afford to step down and out of the ranks of organized medicine.

This is a day of organized effort and one must unite and remain united with the organization representative of his profession or craft if he ever hopes to attain the greatest ends and good possible. Directly and indirectly untold benefits and privileges accrue to him who is found in the ranks of the organized body that is representative of his pursuit in life. The lonely worker in any calling

does not command the respect, confidence and esteem of the public whom he seeks to serve and to whom he looks for the demands on his service. The stamp of approval — membership in the county, state and national bodies of his profession—means much to the public to-day and is a valuable asset to him who is dependent on this public for his livelihood. You, whom we are forced to place on this suspended list, know too well the value that your membership has been to you in the past. It is going to be of still more added value in the future. You must not permit the placement of your name on the delinquent list to continue. Prompt action and the sending of your check to your county secretary and the receipt of your dues by this office before the 10th instant, will secure your reinstatement to good standing. *Do it now. You simply must.*

THE OFFICIAL CALL FOR PAPERS

Members of the Michigan State Medical Society desiring to read a paper before any section of the state society during the sessions of the annual meeting at Flint on September 4 and 5, are hereby requested to at once communicate their intentions to the section officers. In order that definite arrangements may be made, the officers request that they be furnished with the title of the paper, a brief synopsis of its contents and whether or not it will be illustrated by means of lantern slides.

Section on General Medicine: James Clelland, Jr., Chairman, Detroit; B. A. Shepard, Secretary, Kalamazoo.

Section on Surgery: R. J. Hutchinson, Chairman, Grand Rapids; Ray C. Stone, Secretary, Battle Creek.

Section on Gynecology and Obstetrics: E. K. Cullen, Detroit, Chairman; W. M. Manton, Detroit, Secretary.

Section on Ophthalmology and Oto-Laryngology: Eugene Smith, Chairman, Detroit; H. B. Morse, Secretary, Bay City.

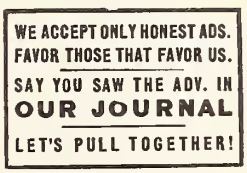
Editorial Comments

WE have secured twenty-five binders for our JOURNAL. They will be sent to any member for one dollar. By securing this binder you will have a neat holder for your journals and at the end of the year the completed volume will be a valuable addition to your library. Save your journals and do this easily by sending us your check for $1.

HAVE you an old school or college mate living in another state or some intimate friend who resides in some distant locality who at one time or another may have been associated with the profession of our state and still is interested when hearing from and about their erstwhile associates? If so, why not send him THE JOURNAL? On the receipt of one dollar, THE JOURNAL will be sent for one year to any address in the United States.

THE annual meeting of the American Medical Association will be held in Minneapolis, June 16-20. Michigan should be well represented at this meeting. The inspiration gained by attendance on such a meeting will more than pay you for your absence from your practice. The opportunity of seeing and hearing the leaders of the profession in this country should not be permitted to pass. The exhibitions in connection with the meeting are in themselves an educational feature. We urge it on you to so arrange your plans so that you may attend this convention. You will not regret it.

A PASTER, bearing the inscription:



is attached to every letter that is sent out by this office. If every member will heed this exhortation THE JOURNAL will be able to supply the reader with a larger number, a greater variety and more valuable original articles. It is the readers' privilege to determine whether or not they will permit THE JOURNAL to attain greater end.

AN interesting clinical case report is not only valuable, but also instructive. A careful report of the features and history of some particular case, together with the ultimate termination of the case and deductions that are drawn from your treatment, go to make up a valuable feature of every medical publication. THE JOURNAL desires to publish one or more clinical case reports in every future issue. To this end we are requesting the members to send the report of every interesting case that they may have been connected with. Half-tone illustrations will be

made from any photographs or charts that may be sent in connection with such a report. May we not receive your case report for the June issue?

AN editorial comment in the *New York Medical Journal* for March 22, 1913, draws attention to the fact that the teaspoon does not always exactly contain 60 minims, has varied in capacity, in fact, from 60 to 120 minims, and it comments on the action of the Australian Medical Society which has recommended the various pharmaceutical organizations to request the pharmacists to write the doses in ounces and drachms instead of teaspoonfuls, and to advise their patrons to secure properly graduated medicine glasses.

This is a very good suggestion, for in this day of standardized preparations teaspoons and tablespoons are obvious anachronisms. A graduated medicine glass is inexpensive, many druggists give them away, and the physician is assured that his prescribed remedies are administered in proper dosage if he but instructs the dispensing pharmacist to write the directions in drachms and ounces.

LAST month we stated that the May issue would contain a résumé of the enactments of our legislature together with comments thereon. At the time when that notice was written it was believed that the legislature would adjourn about the 15th or 20th of April. Since then the date for adjournment has not been definitely determined on and we are compelled to postpone our résumé of the work of the legislature, in so far as it pertains to the profession, until our June issue.

In connection herewith, we also impart the information that a bill has been introduced which, if carried, will amend our present medical practice act. This bill has been approved by the attorney-general and the governor and has been introduced as the result of the work of the Legislative Committee of our Society. It defines the practice of medicine—a definition of which has never been on our statute books—and provides for the punishment of the violators of the medical practice laws of the state.

WITHIN two hours after the press bulletins announced that there was a dire need of medical and nursing assistance for the relief of the flood sufferers in Ohio, the following telegram was sent to President Wilson, Governor Cox and the president of the Ohio State Medical Society:

"Hillsdale, Mich.

"The Michigan State Medical Society is prepared to send you a corps of physicians and nurses for immediate service upon receipt of your message indicating that such assistance is desired. "W. H. SAWYER, President."

In a short time, President Sawyer received the following reply:

"Wire received. Owing to destruction of rail communication I fear you could not reach us. We need funds more than anything else.

"GOVERNOR COX."

While the ability of the medical profession of Ohio was recognized as competent to meet any emergency that might arise, President Sawyer deemed it but proper to tender the services of a corps of Michigan physicians should conditions in Ohio become such that outside medical aid would be required.

THE subscription of one dollar that is deducted from the annual dues that are paid into the treasury is sufficient to defray about half the expenses of the publication of THE JOURNAL. In order that there may be no deficit in the closing of the books at the end of the year, THE JOURNAL is dependent on the revenue received from advertisements. In other words the advertisements defray a great share of the expense incurred in publishing THE JOURNAL. In order that this publication may continue to receive contracts calling for advertising space it is incumbent on our readers to demonstrate that advertising in THE JOURNAL pays. Everyone of our advertisers are reliable. We accept none but honest advertisements. They are able to supply your every need at a price that is no greater than what you would pay if you made your purchases elsewhere. Everything being equal, why not make it a point to patronize those who patronize you? Buy your supplies from JOURNAL advertisers. By so doing you will be advancing your own interests and you will also enable the Publication Committee to send you a better and more valuable journal. *You,* the individual member, have the power to assist in making our JOURNAL a medium that will be sought by advertisers. Patronize them and tell them why you are doing so. "Let's all pull together."

WE feel disposed to make the following suggestions to the contributors to our JOURNAL. The time is particularly opportune when we consider the fact that many of the papers that are to be presented at the state meeting are now in the

course of preparation. These papers will later appear in THE JOURNAL. Every publication must adopt a certain style for the guidance of its editorial policy and to produce an appearance of uniformity. This so-called "style" pertains to the construction of its original articles, etc. Many of the papers that are submitted are without a title, author's name or other mark of identification. Some of the manuscripts are typewritten, others are in long-hand, and again some are composed of both. We might continue and note numerous other inconsistencies. This is not our purpose. What we desire is to impart to our readers and contributors a few general rules which they are kindly requested to observe while composing and preparing their various writings for publication. These rules are as follows:

1. Have the manuscript typewritten, double spaced, on white paper, preferably of the size 8½x11 inches.

2. Leave a margin of at least one inch to the left for editor's notes.

3. Start your first page with the heading of the article, followed by your full name and town or city, thus:

INFANTILE PARALYSIS
By
John Doe, M.D.
Detroit, Mich.

4. If the paper has been read before some society or organization, place a * after the title, and at the bottom of the page give in a footnote the organization, place and date where the paper was read.

5. When referring to some author or publication or employing a quotation, place a number after the quotation or author's name, and on the bottom of that same page note your reference.

6. The ambiguous and inconsistent use of pronouns should be avoided. Sometimes an author will refer to himself in one place as "the writer," in another as "the author," in the third as "I," and still in another as "we." He may then go on and use the pronoun "we" with reference to the medical profession or the world at large, and to refer to the writer of some previously cited literature as "the author." Such a confusion may be so complete that it is impossible to be sure when the author was referring to himself and when to some other person. Consistency here is important. An author should refer to himself in the same terms throughout; and certainly the first personal pronoun—I, me—is the clearest and most satisfactory term to use.

7. In case reports especially, time should be defined exactly. "Six weeks ago," "a month ago," are meaningless phrases, especially if the history extends over a period of a year. "May 1, 1913" conveys a precise time to the reader's mind; such an expression is therefore to be preferred when indicating time or the lapse of time in the writing of a case history.

It is hoped that these suggestions will be of material assistance to those who are composing papers that will appear for publication in future issues of THE JOURNAL. Their observance will enable us to embody a pleasing uniformity in this publication's make-up.

State News Notes

Dr. Louis Kratze has entered practice in Escanaba.

A daughter was born to Dr. and Mrs. William E. Blodgett of Detroit on March 25.

Dr. H. W. Long of Escanaba fractured his right forearm while cranking his automobile March 25.

Dr. J. T. Cramer received a fracture of the radius of the right arm while cranking his machine April 2.

Dr. W. Ellwood Tew, who has been practicing medicine in Boyne City for the past ten years, has moved to Bessemer.

Dr. G. C. Bartley has resumed his practice at North Escanaba, after an absence of six months doing post-graduate work.

Dr. F. C. Kidner of Detroit delivered an address before the State Physical Education Society which met in Detroit on April 12.

Securing the position as resident physician of some of the mines at Palmer, Dr. Arnt Sorberg of Ishpeming has entered on his new work.

Dr. W. H. Sawyer, president of the State Society, was reelected a member of the board of regents of the State University by a large majority.

Dr. R. L. Dixon, of the state board of health, was elected president of the Lake States Sanitary Association at a conference held in Raeine, Wis., March 10.

The department of Public Health is established with this issue of THE JOURNAL and will be edited by Dr. G. L. Dixon, secretary of the State Board of Health.

The Houghton County Anti-Tuberculosis Society at its annual meeting elected Dr. L. L. Hubbard and Dr. A. F. Fischer president and vice-president, respectively.

The members of the Hillsdale County Medical Society gave a banquet and theater party to the physicians of the county and their wives. An enjoyable evening is reported.

A society has been organized in Marshall to plan for the building of a city hospital in accordance with the will of the late Charles Pratt, who left an estate of $75,000 for that purpose.

Dr. H. H. Cummings, assistant to Dr. Reuben Peterson, was appointed university physician by the board of regents, and Dr. Elsie S. Pratt of Denver was appointed physician to the women.

Dr. Andrew P. Biddle, R. A. C. Wollenberg, J. Vernon White and J. A. McMillan announce the removal of their offices to the J. Henry Smith building, corner of Griswold and State streets, Detroit.

Dr. W. E. Blodgett of Detroit has been elected consulting orthopedist to the Butterworth Hospital of Grand Rapids. Dr. Blodgett will be in attendance at the clinic in this hospital on Friday of each week.

Dr. R. E. McCotter, an instructor in anatomy in the medical department of the State University, has resigned and will move to Paw Paw, where he has arranged to take over the practice of the late Dr. A. G. Six.

Dr. Edward T. Abrams of Hancock, upper peninsula member of the State Board of Health, has accepted the invitation to deliver the commencement address to this year's graduates of the Detroit College of Medicine.

At the regular meeting of the State Board of Health, held in Lansing, April 11, Dr. V. C. Vaughn, Sr., of Ann Arbor, was reelected president of the board and Dr. T. M. Koon of Grand Rapids was elected vice-president.

The physicians and citizens of Marquette are planning the erection of a $75,000 hospital which shall be known as the St. Luke's Hospital of Marquette. An architect has been engaged to make the plans and $71,000 has been raised.

The Mellin's Food Company is prepared to furnish physicians, upon request, an indexed card showing the caloric value per fluid ounce of whole milk of average quality, of top milk and bottom milk of various percentages, of skimmed milk and whey. A postal card will bring it to you.

There are thirty-six seniors in the medical department of the university this year, and out of that number twenty-five have been appointed to staff positions in the university hospital and in several of the larger hospitals throughout the country. Eleven of the class will enter private practice.

Dr. F. B. Walker, secretary of the Detroit College of Medicine, informs us that the board of trustees of the Detroit College of Medicine has recommended to the stockholders of the corporation the sale of the property to a new organization that purposes to develop the institution and secure an endowment. The meeting of the stockholders has not as yet been called, but it is anticipated that the reorganization will be completed in a short time.

House bill No. 172, introduced by Representative Montieth of Port Huron, which gives the state board of health supervision over all waterworks and sewage disposal systems in the state, has passed the house and senate and is now in the governor's hands for signature. This bill carries the provision for a state sanitary engineer to be appointed by the state board of health at a salary not to exceed $3,000. We believe that this is one of the most important features of public health legislation under consideration during this session of the legislature and feel disposed to congratulate the legislature for passing this bill.

A party composed of the following Grand Rapids surgeons attended a special clinic conducted at the University Hospital, Ann Arbor, by Dr. Reuben Peterson on April 4: Drs. G. L. McBride, R. J. Hutchinson, T. C. Irwin, F. C. Warnshuis, A. M. Campbell and F. J. Lee. Seven cases, in which there were some interesting points regarding diagnosis, were operated on by Dr. Peterson. Upon the completion of the work in the ampitheater a tour of the hospital was made. Dr. Peterson was the host at a noon luncheon. It is the intention of the men composing this party to make similar visits, at least once a month, to some of the other clinics in the middle west.

The State Board of Health is asking for an increased appropriation for the health department. At the present time the office fund is $9,000 and the board is asking that this be increased to $25,000. In connection with this request it is interesting to note the position of Michigan in the data furnished by the U. S. Public Health Service, which is tabulated to show the amount of money appropriated by the various states for public health purposes for the year 1912: District of Columbia appropriates 33 cents per capita; Pennsylvania, 25 cents per capita; Nevada, 12 cents per capita; Massachusetts, 5 cents per capita; Illinois, 2 cents per capita; Michigan less than 1 cent per capita. This information has been taken at random from the report of the U. S. Public Health Service. This report places Michigan at the foot of the list with the smallest per capita appropriation of any state in the union. For public health protection this report is certainly a very strong argument for granting the increased appropriation asked by our State Board of Health. We sincerely hope that the grant will have been made when this issue of THE JOURNAL reaches our readers.

Death

Ardiel, Lancelot M., M.D. Western University, London, Ont., 1891. Member of St. Clair County Medical Society and American Medical Association. Died at his home in Avoca, March 18, 1913.

Society Proceedings

MICHIGAN STATE MEDICAL SOCIETY

ROLL OF MEMBERS IN ARREARS FOR 1913 ANNUAL DUES

"We recommend the publishing in the May JOURNAL each year the names of all those who, according to the secretary's books, were delinquent on April 15." Action taken by the House of Delegates.

Members whose names are found in the following list have not paid their 1913 dues. Acting on the instructions received from the House of Delegates the following course will be pursued in regard to them unless their remittance reaches this office on or before May 10:

Their JOURNAL will be discontinued.

They will be placed on the suspended list.

They will be denied the protection of the Medicolegal Committee for any proceedings brought against them for services rendered during their period of suspension.

They will be reported to the American Medical Association as dropped for nonpayment of dues.

Is your name on the list?

If so please send your dues to your county secretary at once and thus enable us to keep you in good standing. DO IT NOW.

ALPENA COUNTY MEDICAL SOCIETY

Case, H. W., Mikado.
Smith, Ralph C., Harrisville.
Weed, J. W., Alpena.

ANTRIM COUNTY MEDICAL SOCIETY

Gibson, R. E. L., Central Lake.
Hoag, T. S., Alden.
Long, Chas., Elk Rapids.
Nichols, R. H., Bellaire.
Willoughby, L. L., Mancelona.
Yerkes, L. N., Elk Rapids.

BAY COUNTY MEDICAL SOCIETY

Ballard, S. L., Auburn.
Jones, J. A., Bay City.
Keho, John A., Bay City.
McDowell, G. M., Bay City.
Thompson, F. C., Bay City.
Scrafford, Royston Earle, Bay City.
Stone, D. F., Bay City.
Zaremba, Alois J., Bay City.

BERRIEN COUNTY MEDICAL SOCIETY

Gregg, Sherman, St. Joseph.
Scott, A. H., St. Joseph.

BRANCH COUNTY MEDICAL SOCIETY

Hancock, E. E., Girard.
Whitemore, R. C., Quincy.

CALHOUN COUNTY MEDICAL SOCIETY

Abbott, A. J., Albion.
Bangham, A. D., Albion.
Case, James T., Battle Creek.
Elliott, J. A., Battle Creek.
Grant, H. E., Albion.
Hodges, Lewis, Tekousha.
Hoyt, A. A., Battle Creek.
Johnson, Gertrude, Battle Creek.
Joy, L. S., Marshall.
Marshall, E. J., Marshall.
Nelson, A. W., Battle Creek.
Read, A. J., Battle Creek.
Riley, W. H. Battle Creek.
Roth, Paul, Battle Creek.
Ryan, C. W., Battle Creek.
Staines, Carrie, Battle Creek.
Thompson, J. A., Homer.

CHEBOYGAN COUNTY MEDICAL SOCIETY

Chapman, W. E., Cheboygan.
MacGregor, A. B., Cheboygan.
Reed, W. F., Cheboygan.
Stringham, W. R., Cheboygan
St. Armour, S. A., Cheboygan.
Stringham, J. R., Cheboygan.
Tweedale, C. B., Cheboygan.

CHIPPEWA COUNTY MEDICAL SOCIETY

Cameron, J. A., Pickford.

CLINTON COUNTY MEDICAL SOCIETY

Campbell, O. B., Ovid.
Coulahan, A., De Witt.
Dodge, J. B., St. Johns.
Dunn, F. C., St. Johns.
Porter, C. B., Elsie.

DELTA COUNTY MEDICAL SOCIETY

Gjorkman, George, Gladstone.
Colton, W. A., Ecanaba.
Kee, D. N., Gladstone.

DICKINSON COUNTY MEDICAL SOCIETY

Alving, Otto, Iron Mountain.
Boyce, G. H., Iron Mountain.
Coffin, L. E., Iron Mountain.
Collins, C. D., Iron Mountain.
Crowell, J. A., Iron Mountain.
Cruse, S. E., Iron Mountain.
Darling, A. M., Crystal Falls.
Dockery, M. F., Sagola.
Jones, B. W., Vulcan.
Larson, F., Crystal Falls.
Le Galvan, C., Iron Mountain.
Libby, E. M., Iron River.
Remillar, I. J., Beaverville, Ill.

EATON COUNTY MEDICAL SOCIETY

Bradley, J. B., Eaton Rapids.
Canfield, Wilson, Eaton Rapids.
Hyde, R. J., Eaton Rapids.
Weaver, L. F., Lansing.

EMMET COUNTY MEDICAL SOCIETY

Moorman, E. R., Pellston.
Risk, R. A., Pellston.
Runyan, E. A., Harbor Spgs.

GENESEE COUNTY MEDICAL SOCIETY

Cogshall, Bela, Flint.
Hoaton, J. H., Flushing.
Ramoth, C. P., Flint.

GRAND TRAVERSE COUNTY MEDICAL SOCIETY

Bailey, R., Traverse City.
Carrow, Fleming, Traverse City.
Miner, E. B., Traverse City.

GRATIOT COUNTY MEDICAL SOCIETY

Carpenter, J. P., Ithaca.
Petty, George W., St. Louis.

HILLSDALE COUNTY MEDICAL SOCIETY

Atterbury, W. H., Litchfield.
Barnes, J. Wesley, Prattville.
Becktal, Eli C., Camden.
Clobridge, Charles F., Allen.

HOUGHTON COUNTY MEDICAL SOCIETY

Abrams, J. C., Calumet.
Harkness, R. B., Houghton.
Herring, H. G., Calumet.
Homes, J. T., Calumet.
Joy, H. M., Calumet.
Matchette, W. H., Hancock.
Moore, J. W., Atlantic Mine.
Orr, G. W., Lake Linden.
Quick, J. B., Kearsage.
Rhines, James, Mohawk.
Rodi, C. H., Calumet.
Van Slyke, W. H., Hancock.
Whitten, W. D., Baltic.
Wiley, R. E., Osceola.

HURON COUNTY MEDICAL SOCIETY

Frenzel, Otto, Pigeon.
Friedlander, B., Sebewaing.
Morden, C. B., Bad Axe.
Munro, D. D., Kinde.
Shaver, F. A., Lincoln.
Thompson, J. E., Elkton.
Wastell, Fred W., Harbor Beach.

INGHAM COUNTY MEDICAL SOCIETY

Alexander, R. H., Mason.
Green, A. E., Leslie.
Shumway, F. W., Lansing.
Turner, F. N., Lansing.

IONIA COUNTY MEDICAL SOCIETY

Alton, W. R., Portland.
Grant, W. A., Lyons.
Maynard, H. M., Ionia.
Martin, F. W., Portland.
Woodbury, W. E., Manilla.

ISABELLA-CLARE COUNTY MEDICAL SOCIETY

Gruber, J. E., Shepherd.

JACKSON COUNTY MEDICAL SOCIETY

Brown, H. Durand, Jackson.
Lansford, T. S., Jackson.
Parnall, C. G., Jackson.
Roger, F. W., Jackson.
Rose, Frank L., Jackson.
Townsend, G. H., Jackson.

KALAMAZOO ACADEMY OF MEDICINE

Bulson, G. A., Vicksburg.
Giddings, A. M., Climax.
Haight, A. M., Climax.
Hutton, A. M., Ashteno.
Leighton, N. E., Hopkins Station.
McLeay, Don, Prairieville.
O'Dell, J. H., Three Rivers.
Smith, Malcolm, Allegan.
Smith, Hugh, Gobleville.

KENT COUNTY MEDICAL SOCIETY

Annis, L. C., Cedar Springs.
Apted, Ralph, Grand Rapids.
Aurin, E. C., Cedar Springs.
Beel, H. J., Grand Rapids.
Berge, E. E., Grand Rapids.
Bigham, Earl, Grand Rapids.
Boise, Eugene, Grand Rapids.
Brady, John, Grand Rapids.
Brayman, Charles W., Cedar Springs.
Cardwell, J. F., Grand Rapids.
Chamberlin, Louis H., Grand Rapids.
Chappel, G. A., Graud Rapids.
Chappel, C. E., Berlin.
Corbus, B. R., Grand Rapids.
De Kraker, J. M., Grand Rapids.
Dewar, J. B., Grand Rapids.
Dingman, H. W., Grand Rapids.
Duncan, J. A. P., Grand Rapids.

Edie, J. O., Grand Rapids.
Edwards, J. S., Grand Rapids.
Ferguson, J. E., Grand Rapids.
Fuller, R. W., Grand Rapids.
Fuller, Wm., Grand Rapids.
Chareeb, Saleem E., Grand Rapids.
Gordon, T. De Witt, Grand Rapids.
Graybiel, Alex. G., Caledonia.
Griswold, J. B., Grand Rapids.
Hirschberger, Freda, Grand Rapids.
Hooker, Charles E., Grand Rapids.
Huzinga, J. G., Grand Rapids.
Hulst, Henry, Grand Rapids.
Innis, J. H., Grand Rapids.
Irwin, T. C., Grand Rapids.
Kasabian, M. H., Grand Rapids.
Kelly, C. M., Grand Rapids.
Lee, Francis J., Grand Rapids.
Lyman, W. D., Grand Rapids.
McDonnell, O. C., Lowell.
McPherson, A. G., Grand Rapids.
Maurits, Reuben, Grand Rapids.
Moon, Cora A., Grand Rapids.
Northrup, Wm., Grand Rapids.
Parkhurst, L. P., Grand Rapids.
Patterson, A. J., Grand Rapids.
Patterson, E. W. E., Grand Rapids.
Robertson, F. D., Grand Rapids.
Roller, L. A., Grand Rapids.
Rooks, J. J., Grand Rapids.
Schurtz, Perry, Grand Rapids.
Sicotte, R., Sparta.
Sinclair, D. S., Grand Rapids
Sinclair, Melvin C., Grand Rapids.
Smith, M. E., Cordovia, Alaska.
Thompson, A. B., Grand Rapids.
Urguhart, R. T., Grand Rapids.
Wallace, D. J., Sparta.
Williams, Alden H., Grand Rapids.
Wolford, C. T., Grand Rapids.
Wright, J. M., Grand Rapids.

LAPEER COUNTY MEDICAL SOCIETY

Bolton, A. O., Gladwin.
Frazier, J. V., Lapeer.
Suiter, J. P., Hadley.

LIVINGSTON COUNTY MEDICAL SOCIETY

Coan, M. H., Brighton.
Culver, C. F., Howell.
McGarvagh, J. A., Fowlerville.

MACOMB COUNTY MEDICAL SOCIETY

Bush, H. J., Armada.
Gibson, J. C., Detroit.
Lungerhansen, W. T., Mt. Clemens.
Meek, Chas. F., New Baltimore.

MANISTEE COUNTY MEDICAL SOCIETY

Foster, R. F., Bear Lake.

MARQUETTE-ALGER COUNTY MEDICAL SOCIETY

Lamb, E. E., Republic.
Spinks, R. E., Diorite.

MASON COUNTY MEDICAL SOCIETY

Switzer, G. W., Ludington.

MECOSTA COUNTY MEDICAL SOCIETY

Watley, Samuel, Blanchard.

MONTCALM COUNTY MEDICAL SOCIETY

Boles, E. W., Coral.
Culbertson, A. P., Vickeryville.

MUSKEGON-OCEANA MEDICAL SOCIETY

Bussard, R. I., Muskegon Heights.
Campbell, W. A., Muskegon.

NEWAYGO COUNTY MEDICAL SOCIETY

Weaver, L. S., Saranac.
Nafe, George W., Fremont.

OAKLAND COUNTY MEDICAL SOCIETY

Anderson, J. W., Royal Oak.
Baker, M. I., Milford.
Brannock, A. L., Pontiac.
Castell, D. G., Pontiac.
Chapman, H. S., Pontiac.
Chapman, J. B., Pontiac.
Chapman, E. A., Walled Lake.
Robb, S. B., Leonard.
Starker, Clarence, Pontiac.
Sutherland, C. J., Clarkston.
Ulothe, M. J., Ortonville.
Van Sickle, J. R., Holly.
Morris, C. D., Pontiac.
Miller, J. A., Farmington.
Manley, Ora, Highland.
Johnson, Fred L., Holly.
German, F. D., Franklin.
Galbraith, S. E., Pontiac.

OSCEOLA-LAKE COUNTY MEDICAL SOCIETY

Barnard, T. H., Tustin.

OTTAWA COUNTY MEDICAL SOCIETY

Huizinga, T. G., Zeeland.
Stroud, H. A., Douglas.

PRESQUE ISLE COUNTY MEDICAL SOCIETY

Larke, B. G., Rogers City.
Monroe, Neil C., Presque Isle.
Nester, M. H., Rogers City.

SAGINAW COUNTY MEDICAL SOCIETY

Edelman, F. W., Saginaw.
Ferguson, G. H., Saginaw.
English, Wm., Saginaw.
Ferguson, F. H., Saginaw.
Grigg, A., Saginaw.
Harris, Leon B., Saginaw.
Leach, H. M., Saginaw.
Leitch, A. E., Saginaw.
McLean, Neil, Saginaw.
Stewart, G. W., Saginaw.
Watson, C. S., Saginaw.

SANILAC COUNTY MEDICAL SOCIETY

Griffin, W. A., Deckerville.
Ward, W. Wiers, Marlette.

SHIAWASSEE COUNTY MEDICAL SOCIETY

Benjamin, W. A., Bancroft.
Carney, E. J., Durand.
Crawer, G. L. G., Owosso.
Edred, J. N., Chesaning.
Elliott, E., Chesaning.
Gooding, A. S., Owosso.
Wilson, P. S., Owosso.

ST. CLAIR COUNTY MEDICAL SOCIETY

Campbell, N. D., Blaine.
Patterson, M. A., Port Huron.
Thompson, A. E., St. Clair.
Waters, George, Memphis.

ST. JOSEPH COUNTY MEDICAL SOCIETY

Scidmore, A. W., Three Rivers.

TRI-COUNTY MEDICAL SOCIETY

Babcock, E. B., Kalkaska.
Barry, J. A., Harietta.
Johnson, Donald, Marion.
White, H. C., McBain.

TUSCOLA COUNTY MEDICAL SOCIETY

Cowley, O. G., Vassar.
McLean, Charles H., Detroit.
Morris, H. L., Vassar.

WASHTENAW COUNTY MEDICAL SOCIETY

Gage, John G., Ann Arbor.
Lowe, Charles R., Ann Arbor.
Paton, T. W., Ypsilanti.
Rexford, H. B., Sebewaing.
Roth, George B., Ann Arbor.
Scheurer, P. A., Manchester.
Schmidt, H. W., Chelsea.
Seidel, U. D., Ann Arbor.
Smith, F. N., Ann Arbor.
Warren, L. F., Ann Arbor.
Willey, Gordon F., Ann Arbor.
Woodbridge, O. O., Ann Arbor.

WAYNE COUNTY MEDICAL SOCIETY

Abbott, A. W., Detroit.
Adam, J. R., Detroit.
Arndt, O. H., Detroit.
Barlow, P. A., Detroit.
Baskerville, R. J., Detroit.
Beall, John A., Detroit.
Binning, D. E., Detroit.
Buesser, F., Detroit.
Burnham, F. V., Detroit.
Callan, J. T., Detroit.
Canfield, G. M., Detroit.
Carr, J. R., Detroit.
Cary, Hugh, Detroit.
Chaney, Willard, Detroit.
Cobleigh, E. J., Detroit.
Cope, C. S., Detroit.
Costigan, D. D., Detroit.
Crittenden, C. L., Detroit.
Cumming, R. B., Wayne.
Dewar, T. A., Detroit.
Dreyer, A. E., Detroit.
Duncombe, D. A. C., Detroit.
Dunn, Rowe A. T., Detroit.
Dwyer, H. F., Detroit.
Estabrook, B. F., Detroit.
Froude, Philip, Detroit.
George, C. H., Detroit.
Glemet, R. G., Detroit.
Goodenow, R. J., Detroit.
Gunsalus, K., Detroit.
Hamilton, Stewart, Detroit.
Henderson, E. W., Detroit.
Herbert, Leo H., Detroit.
Hoag, R. B., Detroit.
Hutchinson W. G., Detroit.
Hutchins, W. H., Detroit.
Inglis, David, Detroit.
Ives, A. W., Detroit.
Johnson, A. H., Detroit.
Judd, C. H., Detroit.
Kenning, Thomas, Detroit.
Kipp, A. W., Detroit.
Kilbourne, K. E., Detroit.
King, H. S., Detroit.
Knaggs, C. W., Detroit.
Krausman, G. C., Detroit.
Lane, W. P., Detroit.
Lawton, T. M., Detroit.
Layton, M. A., Detroit.
Loranger, P. J., Detroit.
Lyon, L. W., Detroit.
MacQuisten, W. G., Detroit.
Maus, H. J. C., Detroit.
McAfee, F. W., Detroit.
McClelland, R. J., Detroit.
McClurg, David, Detroit.
McDonald, N. G., Detroit.
McEacheron, A. D., Detroit.
MacGough, James, Detroit.
McMahon, G. H., Detroit.
McMahon, H. O., Detroit.
Mead, James E., Detroit.
Meridian, W. J., Detroit.
Merritt, E. D., Detroit.
Miner, E. G., Detroit.
Mowry, W. P., Detroit.
Muenz, Carl F., Detroit.
Mulheron, Hugh, Detroit.
Newton, E. P., Detroit.
O'Brien, E. J., Detroit.
Olandi, J. P., Detroit.
Opperman, Rudolph, Detroit.
Oryan, F. W., Detroit.
Pfeiffer, R. L., Detroit.
Porey, W. G., Detroit.
Potter, W. A., Detroit.
Potter, Andrew D., Detroit.
Pulford, F. W., Detroit.
Radziuski, A. J., Detroit.
Reid, W. J., Detroit.
Reilly, Frank A., Detroit.
Roach, John J., Detroit.
Roberts, F. J., Detroit.
Robinson, George W., Detroit.
Sadowski, R. J., Detroit.
Schureman, J. W., Detroit.
Schwanz, M. J., Detroit.
Sipe, George K., Detroit.
Smith, F. Harvey, Detroit.
Snyder, W. H., Detroit.
Starring, Anna, Detroit.
Stevenson, B. A., Detroit.
Stevens, W. C., Detroit.
Tacey, J. P., Detroit.
Taylor, R. S., Detroit.
Thomas, L. C., Detroit.
Thomson, W. C., Detroit.
Tufford, J. C., Detroit.
Van Loon, Henry J., Detroit.
Watson, C. E., Detroit.
Wiles, E. W., Detroit.
Williams, S. K., Detroit.
Wilson, J. W., Detroit.
Worden, A. L., Detroit.
Singer, Frank, Detroit.
Zumstein, F. E., Detroit.

REPORT OF THE PUBLIC HEALTH COMMITTEE

Dr. Clara M. Davis of Lansing, secretary of the Public Health Committee, submits the following report:

LENAWEE COUNTY.—Work of the Public Health Committee is under the supervision of the county society. Dr. G. M. Loehner, secretary, Adrian.

EMMETT COUNTY.—No public health work done this year. Matter tabled.

ARENAC AND IOSCO COUNTIES.—No Public Health Committee in this county.

MONROE COUNTY.—Nothing accomplished. Medical Society trying to arrange for lectures on contagious diseases and medical inspection of schools.

GRATIOT COUNTY.—This society did not appoint a committee on Public Health.

ISABELLA AND CLARE COUNTIES.—Work in charge of Woman's Club. City administration not urging public health work.

ONTONAGON COUNTY.—Nothing has been done in this county.

ST. CLAIR COUNTY.—Lectures delivered before Woman's Club, Y. W. C. A. and Nurse's Society on Eugenics, and medical inspection of schools. Arrangements made for other lectures.

MONTCALM COUNTY.—No work done as yet, but plans will be discussed by the county society on April 10.

SCHOOLCRAFT COUNTY.—Good anti-tuberculosis work. Lecture on public helath by Dr. Kiefer. Establishment of a drinking fountain by the Ladies' Literary Club.

KALAMAZOO.—Your committee on public health and education would respectfully submit the following report:

In January your committee met with a number of social workers of the city and outlined topics for public meetings to be held in the Academy of Medicine rooms each Wednesday evening, beginning February 5. The topics selected and programs carried out are indicated below:

"Mouth Hygiene," by Dentist H. H. Tashjian. "Tonsils and Adenoids," by Dr. Edward Bernstein.

February 12.—"Child Welfare," by Miss Lucy Gage, head of the kindergarten department of the Western State Normal.

February 19.—Dr. L. H. Harvey of the Western State Normal gave an address on "Heredity."

February 26.—The subject of housing was discussed by Dr. H. L. Stetson, dean and acting president of Kalamazoo College. The address was based upon the findings of a careful survey of our city conducted by the senior class of the college. Dr. Ostrander and Dr. Light of the Tuberculosis Society supplemented this from the results of studies of local conditions from a tuberculosis point of view. Several others took part in the discussion.

March 5.—Dr. H. R. Light talked on pure food and pure drugs.

March 12.—Dr. Blanche Epler discussed contagion.

March 26.—"City and Community Hygiene" was presented by the following speakers: Andrew Lendrink, city engineer, talked on our streets and sewers; George Houston, city water commissioner, discussed our water supply; Dr. A. H. Rockwell, city health officer, discussed the disposal of garbage and night soil; Mr. Andrews, city plumbing inspector, sent a communication on sanitary plumbing; Mr. Chester S. Carney, principal of the Portage street high school, discussed flies as a means of communicating disease; Mayor C. B. Hays gave a general discussion of the topics from the mayor's point of view.

Previous to this series of talks by our local people, Dr. W. A. Evans of Chicago gave a health lecture in the First Baptist Church on Tuesday, January 28, on "What Kalamazoo Can Do." Dr. Evans also spoke to the normal students and teachers of the public schools the same afternoon.

Notice was sent by me to the secretary of each county society in the state asking for a report of the public health work done through the various societies. The above societies were the only ones to reply.

Submitted by

CLARA M. DAVIS, M.D.
Secretary Public Health Committee.

DETROIT COLLEGE OF MEDICINE ALUMNI ASSOCIATION. ANNUAL CLINIC WEEK

May 21 to May 28, 1913

The Annual Clinic of the Alumni Association of the Detroit College of Medicine will be held in Detroit during the week of May 21-28. In addition to the Detroit men, outside talent from various parts of the country will assist in conducting this clinic. Judging from the professional standing of these men the coming clinic week bids fair to be one of the most successful and valuable weeks in the history of the association.

The following is the list of the outside men who will conduct special clinics:

On Wednesday, May 21, Edward B. Dench, Ph.B., M.D., will give a clinic on "Diseases of the Mastoid Amenable to Radical Mastoid Operation." Dr. Dench is professor of Otology, University and Bellevue Hospital Medical College; Attending Aural Surgeon, New York Eye and Ear Infirmary; Consulting Otologist to St. Luke's Hospital, to the New York Orthopedic Hospital and to the Neurological Institute.

On Thursday, May 22, Lyman Greene, M.D., will hold a clinic on "Congenital Asthenia of the Universal Type." Dr. Greene is now professor of medicine and chief of the Department of Medicine in the University of Minnesota.

On Friday, May 23, Otto T. Freer of Chicago will hold a clinic on "Tonsillectomy by Knife Dissection," and "Resection of the Inferior Turbinate Bone." Dr. Freer is assistant professor Eye, Ear, Nose and Throat at Rush Medical College.

On Saturday, May 24, John Rogers, M.D., of New York City, will give a clinic on "The Medical Treatment of Thyroid Disturbances." Dr. Rogers is really the originator of the thyroid serum therapy.

On Monday, May 26, John B. Murphy, A.M., M.D., will hold a clinic on "Diseases of the Bones and Joints." Dr. J. B. Murphy needs no introduction to the profession of Michigan.

On Tuesday, May 27, Frederick T. Lord, A.B., M.D., of Boston will hold a clinic on "Diseases of the Lungs and Pleura." Dr. Lord is a member of the staff of the Massachusetts General Hospital and assistant instructor in medicine in the Harvard Medical School.

On Tuesday, May 27, Hugh Cabot, A.B., M.D., of Boston, will give a clinic on "Genito-Urinary Diseases." Dr. Cabot is a member of the staff of the Baptist and Massachusetts General Hospital, Boston.

On Wednesday, May 28, Herbert A. Bruce, M.D., of Toronto, will hold a surgical clinic. Dr. Bruce is a member of the faculty of the Toronto University.

The following is a complete schedule for the work of the entire week:

Wednesday, May 21—Harper Hospital

9 to 10 a. m.—"Diseases of the Rectum and Colon," Dr. L. J. Hirschman.

10 to 11 a. m.—"Gynecology and Obstetrics," Dr. J. H. Carstens.

11 a. m. to 1 p. m.—"Radical Mastoid Operation," Dr. Edward B. Dench, New York.

3 to 4 p. m.—"X-Ray Demonstrations," Dr. P. M. Hickey.

4 to 5 p. m.—"Dermatological Clinic," Drs. H. R. Varney and R. C. Jamison.

5 to 6 p. m.—"Chemistry of the Automobile," F. T. F. Stephenson.

Tuesday, May 22—St. Mary's Hospital

9 to 10 a. m.—Anemia Clinic, Dr. W. M. Donald.

10 to 11 a. m.—Eye and Ear Clinic," Dr. E. B. Smith.

11 a. m. to 1 p. m.—"Congenital Asthenia, Universal Type," Dr. C. L. Greene, Minneapolis.

3 to 4 p. m.—"Appendicitis," Dr. Andries.

4 to 5 p. m.—Gastro-Enterology, Dr. Jas. E. Davis.

5 to 6 p. m.—Cardiac Irregularities, W. J. Wilson, Jr., M.D.

Evening—Stag Party, Alumni Association Harper Hospital.

Friday, May 23—Harper Hospital

9 to 10 a. m.—Gynecological Clinic, Dr. J. H. Bell.

10 to 11 a. m.—Medical Clinic, Dr. A. G. Jennings.

11 a. m. to 1 p. m.—Tonsillectomy and Nasal Operations, Dr. Otto T. Freer, Chicago.

3 to 4 p. m.—Special car to Wayne County Asylum. Dr. J. J. Markel.

4 to 5 p. m.—Neurological Clinics, Drs. Inglis, Ives and Hitchcock.

5 to 6 p. m.—Complimentary luncheon.

Saturday, May 24—St. Mary's Hospital

9 to 10 a. m.—Surgical Clinic, Dr. F. B. Walker.

10 to 11 a. m.—Nose, Throat and Chest Clinic, Dr. S. G. Miner.

11 a. m. to 1 p. m.—"Diseases of the Thyroid Gland," Dr. John Rogers, New York.

3 to 4 p. m.—Dermatological Clinic, Dr. A. P. Biddle.

4 to 5 p. m.—Blood Pressure in General Practice, Dr. R. E. Mercer.

5 to 6 p. m.—Genito-Urinary Diseases, Dr. W. E. Keane.

Evening.—Smoker at the Wayne County Medical building.

Monday, May 26—Harper Hospital

9 to 10 a. m.—Orthopedic Surgery, Dr. D. LaFerte.

10 to 11 a. m.—Surgical Clinic, Dr. Angus McLean.

11 a. m. to 1 p. m.—"Diseases of Bones and Joints," Dr. J. B. Murphy, Chicago.

3 to 5 p. m.—At Herman Kiefer Hospital. "Infections," Dr. Guy L. Kiefer.

Evening.—Meeting of the Wayne County Medical Society.

Tuesday, May 27—St. Mary's Hospital

9 to 10 a. m.—Gynecology, Dr. H. W. Yates.

10 to 11 a. m.—"Genito-Urinary Diseases," Dr. Hugh Cabot, Boston.

11 a. m. to 1 p. m.—"Diseases of the Lungs," Dr. F. L. Lord, Boston.

3 to 4 p. m.—Surgical Clinic, Dr. W. J. Seymour.

4 to 5 p. m.—Diseases of Children, Dr. S. L. Polozker.

5 to 6 p. m.—X-Ray, Dr. G. Chene.

Wednesday, May 28—Harper Hospital

9 to 10 a. m.—Rectal Diseases, Dr. McMillan.

10 to 11 a. m.—Surgery, Drs. Potter and Sterling.

11 a. m. to 1 p. m.—"Surgery of Obstruction of the Large Bowel," Dr. R. E. Bruce, Toronto.

3 to 4 p. m.—Eye and Ear, Dr. D. M. Campbell.

4 to 5 p. m.—Cerebro-Spinal Meningitis, Dr. G. McKean.

5 to 6 p. m.—Application of the Cystoscope, Dr. W. J. Cassidy.

Evening.—Class reunion—1883, 1888, 1893, 1898, 1903, 1908.

Thursday, May 29

9 to 10 a. m.—Parke, Davis & Co.'s laboratory.

10 a. m.—Boat Ride. Parke, Davis & Co.'s dock. Dinner on boat. Guests of Dr. George Potter. Annual meeting and election of officers on boat, returning at 5:30 p. m.

Evening.—Graduating exercises and banquet.

R. C. ANDRIES, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held March 20, 1913, at the Elks' Club rooms. Dr. E. E. McKnight, the newly elected president, entertained the members at dinner at 6 p. m., following which he delivered his inaugural address.

Dr. McKnight summarized the evils obtaining from contract practice and declared that there was lost to the profession in Alpena $30,000 yearly by reason of underpaid lodge and contract work. The fourteen physicians present expressed similar forcible conclusions and a committee of three was appointed to report at the next meeting ways of mitigating this evil.

Drs. Leo Secrist, W. A. Secrist and J. W. Small were appointed a committee to entertain the Society at their next meeting, April 17.

C. M. WILLIAMS, Secretary.

BENZIE COUNTY

At the regular meeting of the Benzie County Medical Society held at Benzonia March 26, 1913, the following officers were elected for the coming year:

President, Dr. C. P. Doyle, Frankfort; vice-president, Dr. H. J. Kinne, Frankfort; secretary-treasurer, Dr. E. J. C. Ellis, Benzonia-Beulah.

Dr. G. O. Edmunds of Honor was elected delegate to the state convention and E. J. C. Ellis of Benzonia-Beulah, alternate.

E. J. C. ELLIS, Secretary.

BERRIEN COUNTY

The regular monthly meeting of the Berrien County Medical Society was held in the parlors of Hotel Whitcomb, St. Joseph, at 4 p. m., April 10, 1913.

Dr. F. C. Warnshuis, secretary of the State Society, read a paper entitled "The Open Treatment of Fractures." The discussion of the paper was led by Drs. Sowers and Vitch.

Dr. Warnshuis also addressed the society upon the work that was being done by the state organization. An informal discussion was engaged in and methods for the upbuilding of the county organization were thoroughly discussed. After the meeting an informal supper was served in the dining room of the hotel and an enjoyable hour was spent. There was a good attendance at the meeting.

CARL M. MITCHELL, Secretary.

DELTA COUNTY

The regular monthly meeting of the Delta County Medical Society was held at the Escanaba High School March 14, 1913. A symposium on "Goitre," illustrated by lantern slides, was given. Dr. A. J. Carlson of Escanaba discussing the pathology, Dr. E. R. Wescott of Spalding the symptomatology and treatment, and Dr. M. P. Fenelon of Escanaba the surgery of this condition.

H. W. LONG, Secretary.

INGHAM COUNTY

The regular meeting of the Ingham County Medical Society was held in Lansing April 1.

The experiment of holding a clinic turned out to be gratifyingly successful, as the nurses' lecture room at the Sparrow Hospital was crowded with members and visitors, all of whom were more than repaid for the time and effort expended.

Doctor Udo Wile, professor of Dermatology and Syphilology at the University of Michigan, conducted the clinic, making all his diagnoses from objective findings only, ignoring histories and declining to listen to recitals of symptoms. The material was ample and of a suitable variety so that an animated interest was maintained throughout the long session. The last patient, having recently acquired hard chancre, consented to receive an injection of neo-salvarsan, for which purpose the meeting adjourned to the operating room. The point in connection with the salvarsan injection which seemed most to impress the meeting was the extreme simplicity of Dr. Wile's apparatus, which consisted only of a burette and a hollow needle connected by a rubber tube.

Before final adjournment Dr. C. H. Brucher offered the following resolution, which was unanimously adopted:

Resolved, That inasmuch as this Society has been most profitably instructed and agreeably entertained by Dr. Wile's clinic, that we hereby tender him our thanks and express the wish that he visit us again.

HENRY S. BARTHOLOMEW, Secretary.

KALAMAZOO ACADEMY OF MEDICINE

IMPROVEMENTS IN ACADEMY ROOMS

The rooms which the Academy of Medicine now enjoy were furnished by Dr. Van Deusen over twenty years ago without one cent of expense to the members of the Society. The original cost was probably close to a thousand dollars.

The members of the Academy have been using the rooms and furnishings for all these years without a dollar having been spent in keeping up the rooms, except for cleaning. But furniture, even though of the best quality, will not last forever. Every chair in the Academy rooms which Dr. Van Deusen gave to the Society is at this time imperatively in need of repair. Seven leather tops have already been spoiled because repair of the bottoms was not made before, and seven more may have to be recovered.

Two estimates have been considered by the Board of Directors, the lesser one of which was $93.60.

The lantern which we now own is of such antiquated construction that it should be replaced. Any one present at the last meeting will heartily agree to this. If we get another lantern, we must have the combined lantern and reflectoscope, which will cost $100 to $125.

There is also needed a magazine rack for the journals. This can be placed on one of the large tables in the room, made so as to serve as a support for the journals while being read, and in the center can be built a series of pigeonholes for preserving a year's copies of two or three dozen different journals. This will probably cost about $59. The three items totaling $250 to $275 would be an average of a little over two dollars for each member.

This equipment would make our rooms the finest in the state of Michigan, and provide all that could be asked for by any guest, whether he wanted to show slides or opaque objects to illustrate his talk.

Since three dollars from every member's dues goes to the State Society, the local Society gets but one dollar from each member outside of Kalamazoo, and but two dollars from city members. This barely pays the staple expenses, as can be seen by the treasurer's report, so improvements will have to be provided for through special contribution.

At this meeting it will be recommended by the Board of Directors that a special assessment be made of one dollar per member, and that the balance be raised by voluntary donation.

The following papers were presented at the meeting held on March 25: "Pyelitis in Infancy," by Dr. Clara B. Davis of Lansing.

"Isotonic Sea Water in Therapeutics," by Dr. Rollin H. Stevens of Detroit.

The meeting of April 8 consisted of the following program: "The Mode of Transmission of Poliomyelitis," by Walter H. Sawyer, president of the Michigan State Medical Society, Hillsdale. "The Phenomena of Infection," by Victor C. Vaughan, M.D., Ann Arbor. In the evening at an open public meeting in the First M. E. Church, Dr. V. C. Vaughan delivered an address on "Eugenics or Race Betterment."

DR. C. B. FULKERSON, Secretary.

KENT COUNTY

The regular meeting of the Kent County Medical Society was held in the Board of Trade Rooms on Wednesday evening, March 26, 1913. Dr. A. M. Campbell read a paper on "Cesarean Section" and illus-

trated the technic of the operation by means of lantern slides. Dr. A. W. Ives of Detroit was the invited guest of the evening and delivered a very interesting lecture on "Some Impressions of the Psychologists." There was a good discussion of both papers.

The regular meeting of the Kent County Medical Society was held in the Board of Trade Rooms on Wednesday evening, April 9, 1913. Dr. Mark Marshall of Ann Arbor read a paper on "The Dietetic Treatment of Gastric Ulcer." Dr. Hugo A. Freund of Detroit read a paper on "The Action of Digitalis in Cardiac Irregularities." The discussion of both of these papers was opened by Drs. Corbus and Northrupp.

E. W. DALES, Secretary.

LENAWEE COUNTY

Following out the plan recently adopted, the Lenawee County Medical Society met in the Library at Adrian, March 11, 1913, with about twenty members in attendance.

Several very interesting clinical cases were reported by the following members: Drs. Whitney, Westgate, Lamley, Chase, Morden, Sutton and Spaulding. Much interest is manifested in the meetings and much useful knowledge gained. The meeting adjourned until March 25.

GEORGE M. LOCHNER, Secretary.

The regular semi-monthly meeting of the Lenawee County Medical Society was held in Adrian, March 25, 1913. The attendance was not as large as at our last meeting, due to prevalent storm conditions.

Many interesting cases were reported, especially a case of myxedema by Dr. Morden.

The Society is planning on securing some prominent physicians of the state for addresses during the coming months.

GEORGE M. LOCHNER, Secretary.

MONROE COUNTY

The regular meeting of the Monroe County Medical Society was held at the M. & M. Club rooms, Monroe, on Thursday, April 17, at 2 p. m.

Dr. Louis A. Levison of Toledo presented a paper on "Internal Secretions." A paper on "Small-pox" was read by Dr. W. F. Acker of Monroe, followed by a general discussion.

CHARLES T. SOUTHWORTH, Secretary.

MUSKEGON-OCEANA COUNTY

The regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. W. A. Campbell, Friday evening, March 14, 1913. A communication from the State Board of Registration relative to the bill before the state legislature to regulate the registration and licensing of Chiropractics in this state was read. Dr. Marshall moved that the secretary communicate with the author of the letter stating that we will assist in any concerted action against this bill if he will point the way. Seconded by Hotvedt. Carried. A paper on "Injuries of the Hip" was then read by Dr. W. A. Campbell. Discussion opened by Dr. Olson.

The regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. A. A. Smith, Friday, March 28, 1913. A communication from Senator Joe B. Hadden of the Twenty-Third district in regard to the Chiropractic bill was read. Dr. Hotvedt moved that the president and secretary draw up a letter addressed to our representative and senator stating our reasons for opposing the bill. Seconded. Carried. A communication from *The Journal of the American Medical Association* in regard to the United Doctors was read. Dr. Gamber moved that the secretary obtain the information asked for and send to the author of the letter. A paper by Dr. Smith on "Puerperal Venous Thrombosis and Embolism" was read. The discussion was opened by Dr. Hartman. A clinical case of Alopecia Areata was presented.

J. T. CRAMER, Secretary.

SAGINAW COUNTY

At the annual meeting of the Saginaw County Medical Society, held in the mayor's office at the City Hall, March 19, 1913, the following officers were elected for the ensuing year:

President, Dr. Robert MacGregor, Saginaw; vice-president, Dr. W. A. DeFoe, Saginaw; secretary-treasurer, Dr. Alex. R. McKinney, Saginaw.

The trustees of last year were reelected. The retiring president, Dr. G. H. Ferguson, was elected delegate to the state convention, with Dr. D. E. Bagshaw, the retiring secretary, as alternate.

The executive officers were elected to act as the program committee to provide papers for the meetings of the coming year, which are to be held regularly every month.

The relationship of lodge practice to the family physician was discussed and a special committee appointed to investigate and report at the next meeting as to what can be done in this regard.

Following this discussion, the meeting adjourned.

A. R. MCKINNEY, Secretary.

TUSCOLA COUNTY

On April 14, 1913, the Tuscola County Medical Society met at the Montague hotel at Caro. The meeting was called to order by the president, Dr. J. MacKenzie. Following the business section Dr. H. H. Cummings of Ann Arbor read a paper on "Acute and Chronic Pelvic Inflammatory Disease." Drs. Seeley and Deming leading the discussion that followed.

Dr. C. D. Brooks of Detroit presented a paper on "Diseases of the Thyroid and Their Surgical Treatment," the discussion of which was led by Drs. Townsend and Copp.

W. C. GARVIN, Secretary.

WAYNE COUNTY

The regular meeting of the Wayne County Medical Society was held at the Medical Home March 17, with the Vice-President, L. J. Hirschman in the chair. R. L. Clark, secretary.

Dr. A. W. Ives read a paper on "The Impressions of the Psychologist."

The discussion of Dr. Ives' paper was postponed in order to give a hearing to friends of a bill introduced at Lansing to establish a farm colony for epileptics,

thereby relieving the institution at Lapeer from their care.

Judge Hulbert came before the Society in behalf of establishing an institution for the care of epileptics. Epileptics have no right to be placed in the same place as feeble minded persons. A bill has been introduced at Lansing to separate these classes. Lapeer is now fearfully overcrowded and cannot begin to take care of those who have been committed. To provide relief, Lapeer has asked about $97,000. This will give room for 250 new cases. There are now about 450 cases of epilepsy in Lapeer besides many more in county houses and homes. The farm colony bill calls for $200,000 to purchase 2,000 acres of land, and this will relieve Lapeer of the care of 450 epileptics, as well as care for many now getting no attention.

Dr. A. P. Ohlmacher said that in 1866 Ohio first called attention to the separate care of epileptics. It took nearly thirty years to accomplish this in Ohio. The first appropriation was obtained in 1890 in Ohio. Once the state has taken the first step, the development comes as a matter of necessity. It is important not only that epileptics should be separated from the feeble minded and criminals, but also from normal people. In the Ohio Hospital for Epileptics the mistake was made of making it inaccessible. Large buildings was another mistake made in Ohio. Epileptics must be classified amongst themselves. The insane epileptics need different care from those who are not insane. These latter can by their own labor become almost self-supporting and should not be kept in the same institution with the low grade insane epileptics. Dr. Marker of Wayne reported eight epileptics in the county house and fifteen epileptics in the insane asylum at Wayne. The epileptics should not be among the insane.

Dr. Hitchcock recalled the first colony for epileptics established in 1857 in Germany. Ten states have already started colonies and Michigan should get in line. There are no statistics as to how many epileptics are in Michigan. There are about 10,000 in Illinois. Many would be glad to come to a proper epileptic colony who would never consider Lapeer. The following resolutions were offered and carried:

The misfortune of epilepsy creates a large, a pathetic and dangerous class urgently demanding care at the hands of the state.

This burdened class may make their lives most useful to themselves and to others and know that amount of happiness to which they are justly entitled and at the same time free the state from a real danger only in suitable institutional environment.

An experience of nearly fifty years has demonstrated that colony care of the epileptic is best adapted to promote their ultimate welfare, and no less than ten states have already seen the light and started on this plan. Michigan should not lag behind. Therefore

Resolved, That the Wayne County Medical Society give its cordial and earnest endorsement to the bill now before the legislature to create a farm colony for epileptics in Michigan.

Dr. Chadsey called attention to the one hundred and fifty more or less feeble minded pupils in special schools. Many of these would be better at Lapeer. Many of at least the Moron type are as yet undiscovered in the schools and out. These Morons are a very distinct menace to society. We have perhaps 9,000 feeble minded at large throughout the state. If Lapeer were freed from the care of epileptics, many others of a much higher type of feeble mindedness might be cared for and taught to do some useful, self-supporting trade.

Mr. Meigs, one of the board of control of Lapeer, said that the greatest error made at Lapeer was the having to care for epileptics. Lapeer needs two more cottages to care for the feeble minded. When 1,500 inmates are reached at Lapeer, another institution should be started. The danger of feeble-minded individuals is that of reproduction.

Mr. James Inglis asked for active work on the part of the medical profession to aid in passing the bill at Lansing.

Dr. Ives moved that a committee of five be appointed by the president to go to Lansing to urge the passage of this bill. Drs. Hitchcock, W. L. Babcock, Ives, G. L. Connor and Kiefer were appointed such a committee.

The regular meeting of the Wayne County Medical Society was held at the Medical building March 24, with the president, E. W. Haass, in the chair; R. L. Clark, secretary.

Dr. Carstens called attention to the fact that Dr. Sawyer of Hillsdale, the president of the Michigan State Medical Society, was a candidate for re-election to the position of Regent of the University of Michigan.

Dr. Ramon Guiteras of New York City gave an illustrated talk on the kidney. One of the most interesting anomalies of the kidney is unilateral kidney. These are usually lobulated. Lantern slides of such kidneys removed at autopsy were shown. These are often as large as two ordinary kidneys. These are generally very rare, but in three cases these were found amongst fifteen autopsies from one small hospital.

Another interesting anomaly is the misplaced kidney. These are usually hydronephrotic and the vessels come off much lower than in the normal kidney. Pictures of such kidneys from actual cases were shown. This condition has been mistaken for ovarian cyst. The very first nephrectomy was performed on such a kidney, diagnosed as an ovarian cyst and removed under a mistaken diagnosis. The various stages of hydronephroma was illustrated by diagrams. As the hydronephoma gets larger the kidney gets more and more atrophied. Rupture of the kidney is comparatively rare. This sometimes gives an appearance as if a watermelon were placed in the abdomen. The fluid from rupture of the kidney is dark red with white flakes in it. This is very characteristic and is probably due to the action of the urine on the blood.

Cysts of the kidney are very rare. They may be single or even double and contain serum.

A large hydrated cyst of the kidney was shown. This was located just at the junction of the pelvis with the kidney proper in a very large kidney. A polycystic kidney was shown. They grow larger and larger, probably from birth. Such kidneys are inoperable, as both kidneys are affected and there is not enough healthy kidney tissue on either side to sustain life. Some examples of kidney tumors were shown. A sarcoma of the kidney was shown, as well as one of carcinoma of the kidney. The sarcoma was sprouting through the kidney capsule. The carcinomatous kidney was not adherent and could be removed and the patient

is still alive after six years. A very large varicocele may be a symptom of tumor of the kidney.

A few cases of stone in the kidney were demonstrated. They may be infected and give septic symptoms. A picture of an angular stone four inches long was thrown on the screen.

There are a great many cases of non-functionating kidney which are never discovered. The stones may destroy the kidney tissue by atrophy. You can never tell from catheterization whether the kidney is in its proper place. Non-functionating kidneys are usually destroyed either by tuberculosis or stone. On tubercular kidneys you can always see tubercles under the capsule. The ureter may be so infiltrated with tubercle as to make catheterization impossible. To get a good specimen from a tuberculous kidney, the organ must be injected through the ureter with the preservative used and in this way the cavities are brought out.

Tubercular deposits in the ureter may obstruct the passage of urine and cause the damming back of the urine, making pressure atrophy of the kidney and destroying the kidney in a few days. The kidney may be destroyed by tubercular cavities. In all cases of suppurative disease of the kidney, you want to find the ureter and follow it up to free it from all kinks and adhesions. Pyonephrosis may completely destroy a kidney and cause a nonfunctionating organ.

Anuria is the great emergency operation on the kidney. A number of cases of perinephritic abscesses were illustrated. The paper was profusely illustrated with about a hundred interesting lantern slides.

Dr. Robbins moved a rising vote of thanks from the society. Seconded. Carried. Dr. Guiteras was elected an honorary member of the Society.

The following were elected to active membership: Drs. Rhoda Farqueson De Blois, Victor Bolko Orzechowski, L. Slominski, W. H. Diebill, Harry D. Trask and Frank A. Kelly.

The following were elected to associate membership: Frank W. Kerr, Walter L. Dodd, Henry C. Reinhold and Dr. G. D. Narvin.

The Surgical Section held its regular meeting April 3 with the chairman, F. B. Walker, in the chair; F. N. Blanchard, secretary pro tem.

Dr. C. D. Brooks read the paper of the evening on "Severe Infection of the Appendix."

Appendicitis is a surgical disease and an early diagnosis must be made if we do our full duty to our patient.

It is found at all ages, and while a disease of the young, accounts for many of the intra-abdominal disorders from infancy to old age.

Many mistakes are made in diagnosis, due principally to negligence, and lack of a proper thorough examination.

A definite written clinical history should always be obtained.

Medicine has no place in treatment until after the diagnosis is made and the treatment decided upon.

Nature cries out with certain symptoms which call loudly for recognition; these should not be throttled with narcotics and opiates.

Patients should be taught the danger of the early operation vs. the expectant plan of treatment.

From the economic standpoint alone early operation is best, as it means only a few days of lost time, while on the other hand repeated attacks not only are a menace to life but render one unfit to earn a livelihood.

The mortality is nil in the early operation, but is from 3 to 15 per cent. in delayed and neglected cases.

In 126 cases operated upon in 1912 by Dr. Angus McLean and the writer for acute and chronic appendicitis without pus there was no mortality.

In 52 cases of localized abscess there was a mortality of 2 or 3 per cent.

In thirty-five cases of general peritonitis there was a mortality of 5 or 14 per cent.; three of the cases died within six hours after operation and were not in condition for the slightest operative procedure.

Dr. Longyear opened the discussion. Many can remember the time when appendicitis was unknown. The patient used to live or die from peritonitis without knowing the cause. To operate with success and always with success it must be done before perforation has occurred and the abdomen is still clean. We must operate if possible within twelve hours. The severe infections of the appendix should not be overlooked as the symptoms are so characteristic. Very severe cases are much better operated in the home than after a long and tiresome journey to a distant hospital. A packing of the wound is just as efficient drainage as by the multiple stab wounds advocated by the essayist. The deep method of saline by rectum used in enormous quantities is also a life-saving device.

Dr. Judd said that the curling of the appendix is due to the shortness of the blood vessels. The appendix is obliterated in about 50 per cent. of the cases at autopsy. This is doubtless the reason why appendicitis is rarer as the patients grow older. The leucocytosis depends on the ability of the patient to react. In washing out the stomach, one should remember that the stomach normally contains 100 c.c. of fluid.

Dr. Simpson called attention to the fact that an infection of the appendix in a child is much more dangerous than in the adult as there is less chance of its being walled off.

Dr. Tibbals thinks any case of appendicitis is badly treated which is allowed to perforate. The family physician and the surgeon should work together from the start in the care of cases of appendicitis. It is not always so easy to make a positive diagnosis of appendicitis. Two members of this society are now threatened with suit because they failed to remove the appendix in a bad pus case of appendicitis.

Dr. Davis brought out some points in drainage. If drainage does not take place within twenty-four hours, it will not occur later. In quite a number of cases, suppression of urine occurs. Saline may not be retained, if the temperature of the solution is allowed to fall below 100° F. The patient will usually retain 10 pints of saline in twenty-four hours if properly given. The saline helps to keep up the blood-pressure. Drainage from the peritoneum may be more efficient through stab wounds.

Dr. Longyear called attention to the importance of displacements of the appendix in diagnosis of appendicitis. The appendix may drop down behind the uterus and cause a pelvic abscess which can sometimes be drained through the vagina.

Dr. Tyson has had the experience of passing through the appendicitis operation. Drainage is of great importance in these cases. When the saline solution gets cool the bowel will not retain it.

Dr. Carstens thinks these cases should be treated the same whether the woman is pregnant or not.

Cases of appendicitis after the delivery are sometimes confused with septicaemia. Appendicitis should be operated early and is not harder than during the intervals between attacks. The diagnosis is ordinarily easy. Every time you puncture the abdominal wall you open new channels for infection. We often try to do much. If the appendix can be easily found, it is removed. Otherwise the abscess is drained without breaking up the protective adhesions.

Dr. Meloy thinks foreign bodies are frequently found in these cases of severe infections. These are of etiological importance.

Dr. Blain finds that appendicitis probably kills more patients in Detroit hospitals than any other two surgical diseases. The physician on making the diagnosis of appendicitis, should place the patient in the upright position as the pus is much less dangerous in the pelvis than in the upper abdomen. Pain, with constipation in children, is suggestive of appendicitis. Many of these cases are doubtless unrecognized.

Dr. Hewitt thinks an anesthetic which keeps the bowels absolutely still, is the one of choice. Ether fulfills this requirement best. Some of the very sick patients can be done under local anesthetic.

Dr. Brooks closed the discussion. The appendix may become gangrenous within nine hours. The stomach tube is the most valuable feature in the treatment. The drainage tubes are removed from the stab wounds in twenty-four to thirty-six hours as they are useful for a short time. The operations should only last a few minutes.

The Wayne County Medical Society held its regular meeting April 7, with the chairman, E. W. Haass, in the chair; R. L. Clark, secretary.

Dr. Holmes introduced the following amendment to the By-Laws:

Add to Section 6.—Any active or associate member may be enrolled as a life member of his class upon the payment of three hundred dollars ($300.00) and thereafter shall not be required to pay dues to this Society or to the Michigan State Medical Society.

Dr. Cooley moved that the Wayne County Medical Society approve the adoption of the Visiting Nurses' Association of a rule that the nurses of this organization instill a 2 per cent. solution of silver nitrate into the eyes of any new born babies which they are called upon to care for, unless ordered otherwise by the attending physician. Seconded. Carried.

The following resolution was introduced and carried: Be it

Resolved, That the Wayne County Medical Society, with a membership of over six hundred active members, being the largest County Society in the state, unanimously endorse and urge the appointment of Surgeon Wm. C. Braisted to the office of Surgeon General of the United States Navy. We respectfully request the Honorable Secretary of the Navy to favor his appointment and we assure him that the members of his profession of his native city and state have the fullest confidence in his qualifications to fill this high office with honor to himself, his native state and the nation.

Walter E. Welz read the paper of the evening on "A Study of the Induction and Acceleration of Labor Pains."

Experimental efforts indicate that the act of parturition is one of anaphylactic shock the effect of which is centered in the uterine muscle. End products of proteid metabolism in the fetus enter maternal circulation during pregnancy just as placental cells do. These sensitize the maternal organism to the fetal proteid. Toward the termination of pregnancy large quantities of the proteid birth substances are transferred through the placenta from fetus to mother. The enzyme capable of splitting up these has been greatly increased during pregnancy. When the large quantities of birth substances enter maternal circulation, the enzymes capable of digesting them act on them, splitting them into forms which are toxic. The action of these is exerted almost entirely on the uterine musculature. The result is a characteristic series of clonic contractions which we call labor. Von der Heide, Rongy and Welz have caused commencement of labor in women at or near term by injecting large quantities of fetal serum into the maternal circulation.

The pituitary body hypertrophies during pregnancy and during the birth act discharges quantities of its secretion into the maternal circulation to aid uterine contractions. The birth substances act directly or indirectly as hormones in stimulating the secretion of pituitrin during the birth act. Injecting the extract during labor which has started, aids the act by stimulating normal clonic contractions. The use of the extract from lower animals is indicated where there is a deficiency of secretion in the individual. The extract was used in thirty cases in private practice to hasten termination of labor with no harmful results. The average duration of labor was considerably lessened in both primiparae and multiparae.

C. P. McCord gave a demonstration of the serodiagnosis of pregnancy.

County Secretaries' Department

COUNTY secretaries will please review the membership roll of their society as published in this issue of THE JOURNAL and notify this office if there are any errors or omittances.

WE are very much pleased with the response that has met our request for county society reports. There are still some of the societies who have failed to respond, and THE JOURNAL has not had the privilege of hearing from them. To those who have sent in their reports we extend our thanks and trust that they will continue to send us something for publication for each issue. Those who have as yet failed in reporting their meetings we again urge that they make it a point to furnish us with their notes for our next issue. May we not hear from you?

TWO of the county secretaries have remarked that they have difficulty in securing outside men to address their meetings. This office will be more than glad to assist any county secretary in

securing an invited guest for any given meeting. We hope to be able to perfect a speakers' bureau through the means of which county secretaries may be able to secure a speaker for any of their meetings and on any subject which they may indicate. In the meantime we shall be glad to assist any secretary to secure a visiting doctor to address their meetings.

A COPY of The Bulletin of the American Medical Association will be regularly mailed to every county secretary who sends in his name to the secretary of the American Medical Association. This is a bimonthly publication that is devoted to the discussion of questions affecting organization and conduct of medical societies, especially county societies. Its pages furnish a medium of interchange of ideas and plans which have proven successful in building up and stimulating interest in the work of the county society. Do not fail to send in your name. The Bulletin will prove to be a valuable assistant and may be the means of solving the problems of your work.

THE Council, at its January meeting, appropriated a fund for the entertainment of the county secretaries at a luncheon to be held in connection with the annual meeting of the County Secretaries Association on September 3. The purpose of this meeting and luncheon is to afford the county secretaries an opportunity of meeting in formal session for the discussion of the problems that confront every secretary of a county society, and also to determine on definite plans for the upbuilding of the various county organizations. As previously stated, in a former issue, the secretary of this Association is engaged in arranging a program for such a meeting. He is desirous at this time to hear from the county secretaries and learn their wishes as to the particular subjects which they would prefer to have brought up for discussion at this meeting. You are especially urged to communicate with Dr. C. T. Southworth of Monroe in this matter in order that he may not be delayed in arranging an interesting as well as a helpful program. The cooperation of all the secretaries is requested. Please try and write to Dr. Southworth this week.

THE county society is the important unit in the field of medical organization. It is the door of entrance to the profession's organization. It is the sponsor and censor of the members composing the organization. It is and should be a most active and influential body.

It is the privilege, the province and the duty of a county organization to become and remain active in three directions:

First, the securing as members all the reputable and licensed physicians residing in its particular county so that it may be a representative organization composed of men with common interests and the welfare of the profession at heart. This can only be accomplished by persistent effort directed toward enlightening the non-member as to what he is missing by not being affiliated and by endeavoring to point out to him that he owes it to his professional brothers as well as to himself to become a member of the organization in his county so that collectively they may carry on the work that falls to the lot of every county society.

Second, to hold stated meetings for the interchange of experience, the discussion and consideration of scientific and practical subjects pertaining to the daily work of the individual doctor; the consideration of the problems of public health in their immediate vicinity and for the promulgation of such work as will tend to advance their material interests.

Third, the directing of public opinions in all matters that pertain to the health of their community, and to public welfare.

The secretary of every county society will, in a great measure, determine the activity and influence of each county unit. It devolves on him to continuously strive to maintain a spirit of enthusiasm, interest and activity in his county society. To accomplish this he must be constantly active in arranging interesting as well as practical programs for each meeting. In order that a good attendance may be secured, he must send out a notice of each meeting and should as far as possible telephone individual members on the day of the meeting and urge them not to forget to come as well as to take part in the discussions that may take place. It is his to think, plan and talk society whenever he happens to be in a gathering of doctors. He can do this without becoming tiresome or annoying. He must do this if he wishes to instill enthusiasm in the individual member.

The secretary who makes an effort to add some pleasing change in the program of every meeting will be rewarded not only by having a good attendance at the meeting, but also by the appreciation which the members will express. He may accomplish this by following some of these suggestions: A series of clinical cases that are re-

ported by some member and the exhibition of some interesting thing connected with the case, as a pathological or microscopical specimen, a picture or an *x*-ray plate; the exhibition and demonstration of the use of some new instruments or appliances; a symposium dealing with some of the predominating diseases that are prevalent in their vicinity; the giving of a luncheon or a smoker in connection with the regular program; the securing of the presence of an invited guest who will take part in the meeting; the inviting of some lawyer or member of the clergy to address you on such subjects as may be of common interest, and the holding of a joint meeting with your neighboring county society. By so doing you will awaken a spirit of enthusiasm and cause your meetings to be looked forward to. It will also make the non-member eager to become affiliated.

Public Health

Conducted by

ROBERT L. DIXON, M.D.
Secretary Michigan State Board of Health

OCCUPATIONAL DISEASES

Practically any movement or effort made for the purpose of increasing or conserving the efficiency of the so-called "laboring class" is usually received with interest and approval not only by the employers and employees, but by the general public, because it is conceded by all that whatever affects the wage-earner affects the people at large for better or for worse accordingly.

During past years, factory and other commercial industries have received no little attention by the legislative bodies, commissioners of labor, civic societies, health departments and other similar organizations. These attentions have not been exercised for any sentimental reasons, but always for the purpose of increasing or conserving the efficiency of the people immediately concerned and for the ultimate advantage to the public at large.

Factory and labor inspection in reference to dangerous and unhealthful occupations has been instituted but relatively recently as a factor of the scope of labor legislation and regulation. Factory and labor sanitation is a feature of almost present-day establishment. Labor organizations have been slow to adopt as important and as essential to their welfare, the establishment of sanitary, health-producing and disease-preventing measures in relation to their work.

Emergency apparatus and first aid supplies have become a part of factory equipment more because of the fact that employers realized the importance of such protective means than because the ones liable to accident have demanded the same. It is doubtful if the present degree of sanitation in and about commercial industries can be attributed as much to the solicitation of the employees as to the judgment of the employers that such conditions are conducive to good service and increased production, and, therefore, constitute desirable equipment.

The evolution and development of safety devices have rendered the operation of formerly dangerous machinery practically safe. The value of this is, to say the least, as apparent to the manager as to the operator. While these conditions are primarily for the advantage of the laborer, their valuable effect is more far reaching.

In the industrial field it has been realized for some time that *occupational diseases* should be given more serious attention than obtains at the present. Many of us will say, without qualification, that the question of occupational or industrial disease should be carefully investigated and that conditions conducive to such diseases should be legislated against. We agree that health and labor departments of our cities and state should adopt regulations, within the authority allowed by the present law, to the end that occupation will not hazard the health and perhaps the life of the laborer. We agree that if these public departments have not sufficient authority under present statutes, their power should be increased sufficiently to render this important action possible.

This movement, as with any other proposition, regardless of how important a relatively few of us consider it to be, cannot go very far in advance of its apparent need and popular demand for the same. It is impracticable for the health or labor department of Michigan to take any definite action regarding the industrial diseases without slight evidence at least that this class of disease needs attention in this state.

With the probable purpose of obtaining such evidence, the legislature, in 1911, established the following law:

An Act to provide for the reporting of occupational diseases by physicians. (Act 119, P. A., 1911.)

The People of the State of Michigan enact:

Section 1. Every physician attending or called upon to treat a patient whom he believes to be

suffering from poisoning from lead, phosphorus, arsenic or mercury, or their compounds, or from anthrax, or from compressed air illness, contracted as a result of the nature of the patient's employment, shall send to the state board of health, who shall transmit to the commissioner of labor, a notice stating the name, postoffice address and place of employment and the disease from which in the opinion of the physician, the patient is suffering.

Sec. 2. Any physician who shall fail to make any report required by the preceding section, or who shall wilfully make any false statement in such report, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not more than fifty dollars.

Sec. 3. It shall be the duty of the commissioner of labor and of the prosecuting attorney of the county where any one violating the provisions of this act which shall come to the knowledge of them or either of them to enforce this law.

The results of this law, if taken literally, would seem to indicate that there is no necessity for any special consideration of occupational diseases. Up to the present time there are on file in the state labor commissioner's office only five reports under the provisions of this statute. One physician reported three cases of caisson disease and another physician has reported two cases of lead poisoning.

Physicians are, as a class, law abiding, and it would be decidedly out of place to emphasize the importance of complying with Act 119, P. A., 1911, simply for the sake of avoiding the penalty which the law purposes to impose for non-compliance. There are other and more sufficient reasons why these cases should be reported, and it is hoped that these will appeal to the physicians more than heretofore. The men, women and children who are working under conditions liable to produce ill effects are entitled to any degree of protection which the state departments might be able to offer. The commercial industries are entitled to know the extent to which industrial diseases retard the productiveness of their industries and how unfavorable conditions can be remedied. The departments of health and labor are entitled to know somewhat, at least, the extent to which these diseases prevail, their distribution, which mines, factories, shops, etc., are furnishing unwarranted cases of caisson disease, lead poisoning, ammonia poisoning, chlorin poisoning, etc.

The commercial industries of Michigan are exceedingly numerous and diversified in character. There are many industries in which occupational diseases are liable to be contracted. The great majority of these industrial diseases are preventable and therefore unwarranted.

The state departments of labor and health ask the cooperation of the physicians in making a study of occupational diseases in Michigan. The first step in this cooperation can only be the reporting by physicians of all such cases coming to their attention. Although special blanks for reporting cases of occupational disease have been prepared by the state health department, and many of them have been sent out, it is not necessary to report only on such blanks. A letter communication stating the facts of the case, as set forth in the above copy of the law, is sufficient. Blanks will be gladly furnished on request.

Bulletin No. 100, U. S. Bureau of Labor, contains very useful information regarding *industrial poisons,* and can be secured from the U. S. Department of Commerce and Labor for the asking.

It is hoped that many physicians of Michigan will immediately appreciate the importance of this proposition and report all cases of occupational disease as the law requires.

Book Notices

SOLIDIFIED CARBON-DIOXIDE IN THE SUCCESSFUL TREATMENT OF CUTANEOUS NEOPLASMS AND OTHER SKIN DISEASE, with special reference to Angioma, Epithelioma and Lupus Erythematosus. By Ralph Bernstein, Philadelphia. 95 pages, cloth. Frank S. Betz Co., Hammond, Ind.

The author has presented the subject briefly and concisely, as is possible with the omission of histopathologic details. He has, in a practical way, given to the profession the results of his clinical experience in the treatment of the various cutaneous manifestations for which carbon-dioxide solidified has been found an amiable agent. It will prove to be an excellent working manual for the physician desirous of such a guide in the use of this therapeutic agent.

MEN, MANNERS AND MEDICINE by Medicus Peregrinus. Octavo, uncut edges, in heavy paper cover. W. M. Leonard, Publisher, 101 Tremont St., Boston, Mass. Price, postpaid, $1.

The essays and sketches which make up this collection originally appeared from time to time in the columns of the Boston *Medical and Surgical Journal.* They represent the observation of a doctor, from his professional point of view, on men and books and other phenomena, especially in relation to medicine. The reader may not only be entertained but instructed, as he realizes how abundantly the doctor's life affords special opportunities for contact with larger interests outside the day's work. We have read it with pleasure and profit.

Skin Grafting. For Surgeons and General Practitioners, by Leonard Freeman, B.S., M.A., M.D., Professor of Surgery in the Medical Department of the University of Colorado. Twenty-four illustrations. St. Louis, C. V. Mosby Company, 1912. Price, $1.50.

All the reliable methods for skin grafting are explained in this little work, together with technique and cuts illustrating the different points. A neat, useful little book, containing about 125 pages of text.

Epidemic Cerebrospinal Meningitis. By Abraham Sophian, M.D., formerly of the New York Research Laboratory. 272 pages, twenty-three illustrations. C. V. Mosby Co., St. Louis, Mo. Price, $3.00.

The reader is presented, in this volume, the only monograph in English on this important disease. The volume is based on the author's studies in the Research Laboratory of New York and during the epidemic in Texas in 1912. The author has applied, in a systematic, connected order, many of the excellent observations which have been made by other observers. The scientific municipal control of epidemics, the observations of blood-pressure, the control administration of serum, prophylactic vaccination, the symptomatology, complications and treatment are well covered. The author has accomplished his purpose — to convey a thorough yet simple description of the clinical and laboratory findings and thereby familiarizes the reader with their application in the treatment of the disease. The work merits a cordial reception.

The Career of Dr. Weaver. A Novel. By Mrs. Henry W. Backus. Cloth, decorative, illustrated; 12mo, 373 pages. $1.25 net; postpaid, $1.40. Boston: L. C. Page & Co.

Like all good novels this is a love story abounding in real human interest and touching the high points of many problems pertaining to the medical profession. In the portrayal of the characters the author has shown herself abreast of the times and with the problems that confront the profession in its relation with the public as well as their relations with each other. The proprietary hospital, the public clinic, the commercial medical essay, the self-exploiting doctor and the vice of fee-splitting are justly considered. There is not a physician in this state who should fail to secure and read this book and then pass it along among his clientele.

Progressive Medicine. Vol. 15, No. 1. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. March 1, 1913. Paper binding. 359 pages. Lea & Febiger, Philadelphia and New York. $6.00 per annum.

This is a work of such wide reputation as to need almost no reviewing. No member of the profession can well afford to be without it. It is a valuable brief of all that appeared during the previous three months in the leading publications of the world. It places the reader in the possession of all the latest advances, improvements and discoveries in the medical world and it enables him to become conversant with all that is good and is so complete that he can apply these principles in his daily practice. The contents of this number are devoted to Surgery of the Head, Neck and Thorax; Infectious Diseases, including acute rheumatism, croupous pneumonia and influenza; Diseases of Children; Rhinology and Laryngology; Otology. To keep abreast of his profession the practitioner cannot be without this work.

A Laboratory Handbook for Dietetics. By Mary Swartz Rose, Ph.D., Assistant Professor, Department of Nutrition, Teachers' College, Columbia University. New York and London: The MacMillan Co., 1912. Price, $1.10 net.

This book does not tell the kind of diet to prescribe in a given disease or condition. It does tell how to find the exact amount of protein, fat and carbohydrate in the diet you wish to prescribe; also how to determine the quantity, variety and kind of food articles necessary to supply the exact amount of protein, fat and carbohydrate required for any individaul case. It goes farther — by means of principles, rules and tables, well indexed, it points an easy way to find the amount or percentage of protein, fat or carbohydrate in a gram, ounce or pound of any of the many food articles in common use by civilized man. It is exactly what the author claims, "A Laboratory Manual of Dietetics." It is also a quick reference for the busy practitioner.

A Manual of Auscultation and Percussion. Embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurysm, and of other parts. By Austin Flint, M.D., LL.D., Late Professor of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., New York. Revised by Haven Emerson, A.M., M.D., Associate in Physiology and in Medicine, College of Physicians and Surgeons, Columbia University, New York. 12mo, 361 pages, illustrated. Cloth, $2.00 net. Lea & Febiger, Philadelphia and New York, 1912.

To all those familiar with Flint's Physical Diagnosis (and that comprises practically all the profession, for it is the standard from which all Physical Diagnosis is built) nothing need be said of the sixth edition, except that two chapters dealing with the abdominal viscera and nervous system have been added. To all those students or practitioners still unfamiliar with Flint's work, if any there be, let us say that the English language contains no work that sets forth the principles methods, limitations and conclusions of Physical Diagnosis more clearly than does this sixth edition of Flint's work.

Keen's Surgery, Volume VI: The Volume with the Newest Surgery. By eighty-one eminent surgeons. Edited by W. W. Keen, M.D., LL.D., Hon. F. R. C. S. (Eng. and Edin.), Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 1,177 pages, with 519 illustrations, 22 in colors. Philadelphia and London: W. B. Saunders Company, 1913. Entire work, consisting of six volumes, per volume: Cloth, $7.00, net; half morocco, $8.00, net.

The five volumes originally contemplated in this system of surgery were published between 1906-1909. The time elapsed since the first volume was issued is not very long, yet the progress of surgery in so many departments has been so rapid that some of the early matter is obsolete. To bring the system "up to date,"

it has been necessary for the authors to bring their chapters fully abreast with the present status of surgery. This has been accomplished in this volume and it is rightly termed, "The volume with the newest surgery." Anoci-Association; a full description of the apparatus for operating on the thorax; intratracheal anesthesia, as well as other considerations of the method of producing anesthesia; the surgery of the hypophysis; the treatment of cancer by fulguration, desiccation, etc.; thoracic surgery; the use of iodin in surgery have all been fully discussed and places the owner of this volume in possession of details and facts connected with the recent developments attained in these special fields. This volume deserves careful reading and study and should become exceedingly popular.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. Vol. 1, twenty-third series, 1913. J. B. Lippincott & Company, Philadelphia and London. 299 pages; numerous illustrations. Cloth. Price, $2 per volume.

A work that has made its regular appearance for twenty-three series scarcely needs other review than to consider the contents of this particular volume. The value of the series has been established; it has a definite purpose; its favorable reception is assured; the continuance of the series is desired.

This first volume of the twenty-third series is of exceptional interest and value by reason of its containing a concise, accurate and instructive review of the progress of medicine and its branches during the year 1912. Foremost among the articles, contributed and selected, that are published in this book, the reviewer has been especially impressed by those on Poliomyelitis, A Diagnostic Sign in Chronic Appendicitis, Retarded Mental Development, the Care of the Woman During Her Thirty-nine Weeks of Gestation, Report of Ten Cases Operated on for Pott's Disease of the Spine by Albee's Method of Bone Grafting.

To repeat, as a whole the volume is lucid and concise in the treatment of its subjects and amply illustrated. It should merit much favor and a continuance of its popularity.

NERVOUS AND MENTAL DISEASES. FOR STUDENTS AND PRACTITIONERS. By Charles S. Potts, M.D., Professor of Neurology in the Medico-Chirurgical College of Philadelphia. New (third) edition, enlarged and thoroughly revised. In one 12mo volume of 610 pages, with 141 engravings and 6 full-page plates. Price cloth, $2.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

Diseases of the mind and nervous system are among the most intricate and difficult of comprehension of all subjects in medicine, and yet the general practitioner, who probably has not devoted special study to this department, is almost invariably the one who first meets these cases and refers them to the alienist. A medium-sized work, short, clear, and to the point is therefore a great desideratum, and this has been shown in the demand which has brought Professor Potts' book to its third edition. In this new revision the chapter on general symptomatology and methods of examination has been amplified. A description of tic embodying the present-day view of that disorder, and short descriptions of myotonia atrophica, pregressive lenticular degeneration and dysbasia lordotica deformans have been added. The importance of the examination of the cerebrospinal fluid and determination of the existence of the Wassermann reaction in the diagnosis of certain diseases of the nervous system has been realized and the latest views incorporated. In brief, the work includes the most recent advances. It is extremely well illustrated; and a better book for the purpose of the general practitioner or for the college student would be hard to find.

New and Nonofficial Remedies

Since the publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

POLYVALENT ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

ANTIMENINGITIS SERUM.—A polyvalent serum prepared from the blood of horses immunized to the meningococcus of Weichselbaum. Sophian-Hall-Alexander Biologic Laboratories, Kansas City Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT B. COLI-COMMUNIS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

REFINED AND CONCENTRATED DIPHTHERIA ANTITOXIN (ANTIDIPHTHERIC GLOBULIN).—Put up in a syringe container. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT GONOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT MENINGOCOCCUS VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Journal A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT PNEUMOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT PYOCYANEUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT STAPHYLOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT STAPHYLO-ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT STREPTOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

POLYVALENT TYPHOID VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

ANTIRABIC VACCINE.—The Antirabic Vaccine, formerly manufactured by the American Biologic Company, Kansas City Mo. (See New and Nonofficial Remedies, 1913), is now manufactured by the Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

LLOYD'S SPECIFIC MEDICINES.—While some of the products of Lloyd Bros. appear to be proprietary medicines of secret composition, in the main they are the so-called "specific medicines" or "specific tinctures." In general, it is understood that these preparations belong to that class of obsolete pharmaceuticals known as "green tinctures," which at one time were believed to possess great virtues because they were made from the fresh, undried drug. The use of so-called "green tinctures" has been a fad and has never been put on a scientific basis. In an examination of digitalis preparations by Edmunds and Hale, Lloyd's "Specific Medicine, Digitalis" was found to be one of the weakest of all the various preparations examined, although it was claimed to be twice as active as ordinary fluidextracts. (*Jour. A. M. A.*, March 15, 1913, p. 848.)

IOSALINE.—Iosaline is advertised as a remedy for the treatment, by external application, of rheumatism, gout, neuralgia, pneumonia and numerous other diseases. The following claims are made: "Iosaline is a penetrator and overcomes the objectionable escharotic properties of Iodine; it is readily absorbed and may be used without discomfort or discoloration." As there are few iodin compounds which are "readily absorbed" through the skin and which will not at the same time produce discoloration or discomfort, the product was examined in the A. M. A. Chemical Laboratory. The examination indicated the composition to be, approximately: Alcohol (by weight) 48.05 per cent., Menthol 2.07 per cent., Methyl salicylate 10.25 per cent., Potassium iodid 5.55 per cent., Soap 12.68 per cent., Glycerin a trace, water and undetermined matter to make 100.00 per cent. Physiologic tests showed that the iodin was not absorbed by the skin. The laboratory findings having been reported to the Council on Pharmacy and Chemistry, this body voted that, because of the unwarranted and misleading claims, Iosaline be refused recognition. (*Jour. A. M. A.*, March 15, 1913, p. 848.)

GLUTEN FLOUR.—There exists in the mind of the public and even of many physicians the dangerous misconception that so-called "gluten flours" or "diabetic foods" are essentially free from starch. This danger has been increased by the Food and Drugs Act for, while there is a natural belief that the law should protect the public, the government standard for gluten flour makes no requirement regarding the starch content, which is the item of importance from the standpoint of the diabetic. The government regulations merely prescribe that it shall contain at least 35 per cent. protein. The great majority of so-called gluten flours and gluten foods sold in this country contain dangerously high percentages of carbohydrates. The manufacturers do their best to keep both physician and patient in ignorance of this fact. Accepting the exploiters' own figures—given grudgingly—the preparations on the American market contain the following amounts of carbohydrates: Brusson Gluten Bread 49.77 per cent., Farwell & Rhines' Gluten Flour 46.05 per cent., Heintz Gluten (Glutin) Biscuit 51.64 per cent., Jireh Diatetic Biscuit 64.52 per cent., Jireh Flour 58.59 per cent., Jireh Bread 39.12 per cent., Bond Gluten Diabetic Flour 50 per cent., Pieser-Livingston Gluten Flour 44.30 per cent., Hoyt's Gum Gluten products 40.63 per cent. to 48.20 per cent. and Wilson Bros.' Gluten Flour 64.10 per cent. (*Jour. A. M. A.*, March 22, 1913, p. 922.)

THE DEADLY BICHLORID TABLET.—In this country many accidental deaths are caused by the indiscriminate use of mercuric chlorid tablets. The German Pharmacopeia requires that mercuric chlorid pastilles be colored bright red, have a cylindrical shape, be twice as long as thick, be dispensed in glass containers and be labeled "poison." Further, each tablet must be wrapped in black paper which must bear, in white letters, the word "poison" and a statement of the weight of mercuric chlorid. Finally it is specified that they be kept under lock and key. The protection thus given the people of Germany shows the advantages of a "government-owned" pharmacopeia over such as ours which are dominated by commercial interests. (*Jour. A. M. A.*, April 5, 1913, p. 1083.)

MANOLA.—Manola is an alcoholic nostrum with just enough more or less inert medicinal products added to exempt it from the internal revenue tax, but not enough to prevent it being used as a tipple. It is prepared by the Luyties Pharmacy Company of St. Louis, a homeopathic concern. Since the promoters

realize, doubtless, that to put this stuff out under a homeopathic label might not be conducive to stimulating physicians' confidence, Manola is labeled: "Prepared only by the Manola Company, St. Louis." Manola is exploited by means of a scheme which consists in offering the physician three bottles of Manola free on condition that he get his druggist to purchase a dozen bottles. If the scheme "works" the druggist has his shelves loaded up with a dozen bottles of Manola, while the doctor gets three bottles for nothing and, incidentally, he also gets the contempt of his druggist — and of such patients as learn of it. (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

The Gatlin Institute.—The Gatlin Institute is one of the many "three-day liquor cures" with which the country is at present afflicted. Judging from a specimen sent in, ipecac seems to be an important part of the "treatment," for which the evidently false claim is made that "by this method failure to cure is impossible." There appears to be a close connection between the "Gatlin Institute" and the "Neal Three-Day Liquor Cure" operated from the Chicago Hospital and which has one Joseph De Barthe connected with it. De Barthe at one time exploited a "rheumatism cure." At the present time De Barthe seems to be pushing "Kinpo" which is guaranteed to "sober you up immediately." (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

The Toxicity of Salicylates.—P. J. Hanzlik has studied the records of a hospital to determine the relative toxicity of the various salicylic compounds. Given in doses of from ten to twenty grains every hour until symptoms of intoxication appear, it was found that the mean toxic doses for males and females, respectively, are: 180 and 140 grains of synthetic sodium salicylate, 200 and 135 grains of natural sodium salicylate, 120 and 120 minims of oil of gaultheria (methyl salicylate), 165 and 120 grains of acetysalicylic acid (aspirin) and 100 and 83 grains of salicylosalicylic acid (Diplosal). While, based on the salicyl content, the efficiency of Diplosal is about twice that of oil of gaultheria and aspirin one and two-thirds that of sodium salicylate, the toxic dose of Diplosal is one-half and that of oil of wintergreen and aspirin in six-tenths that of sodium salicylate. The investigation shows that there is no difference between the toxicity of the synthetic and natural sodium salicylates. (*Jour. A. M. A.*, March 29, 1913, p. 957.)

Rattlesnake-Venom (Crotalin).—An epileptic in Texas was bitten by a rattlesnake. He escaped the secondary infection which so often complicates and adds to the fatalities by poisonous vipers and his epileptic attacks ceased. Dr. Ralph H. Spangler having had some familiarity in using crotalin in the treatment of pulmonary tuberculosis, attempted to reproduce the favorable issue of the epileptic's accident. That any measure of success sufficient to justify the adoption of crotalin treatment for epilepsy has accrued to his efforts is not to be concluded from the available reports. There are a number of good and sufficient reasons why cautious physicians should shun the administration of this treatment and advise against it. (*Jour. A. M. A.*, March 29, 1913, p. 1001.)

Dixon's Tuberculin.—According to Dixon a peculiar branched form of the tubercle bacillus develops when the bacillus is grown at an elevated temperature. Grown under these circumstances the tubercle bacilli may become non-acid-fast, which is ascribed to loss of the waxy envelope. According to Dixon experiments on guinea-pigs show that the branching, non-acid-fast forms are less virulent than the original cultures from which they are produced and that they induce the development of marked resistance to lethal doses of virulent tubercle bacilli. Dixon has developed tuberculins for practical purposes consisting on the one hand of watery extracts of tubercle bacilli and on the other of suspensions of "degreased bacilli," the theory being that in this way are obtained antigens of little toxicity, but of good antigenic virtue. (*Jour. A. M. A.*, March 29, 1913, pp. 993 and 1062.)

Concentrated Pluto Water.—The claims made for Pluto Water of the French Lick Springs, Indiana, are rivalled only by those made for such patent medicines as Peruna, Duffy's Malt Whiskey or Lydia Pinkham's Compound. The essential constituents of the water are said to be the sulphates of sodium, magnesium and calcium, chlorid of sodium and the carbonate of magnesium. It is, however, only the so-called "concentrated" Pluto Water that is found on the market. The impression is given in all of the advertising matter that the "concentrated" Pluto Water is "natural" Pluto Water concentrated to ten times its "natural" strength. From a comparison of the composition of the "natural" Pluto Water with that of "concentrated" Pluto Water as given out by the promoters shows that the latter has more than eighty times as much sodium sulphate and nearly one hundred times as much magnesium sulphate as is found in the "natural" water. This shows that "concentrated" Pluto Water bears little relation to the "natural" Pluto and that it is essentially a solution of Epsom salt and Glauber's salt. The only indication given on the label of the fact that it is not the "natural" Pluto Water boiled down, is the statement, in small type: "Fortified with some of the natural products of the water." (*Jour. A. M. A.*, March 29, 1913, p. 1013.)

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

of Journal of the Michigan State Medical Society published monthly at Grand Rapids, Mich., required by the Act of August 24, 1912.

NAME OF POSTOFFICE ADDRESS

Editor—Frederick C. Warnshuis, M.D., Grand Rapids, Mich.

Managing Editor—F. C. Warnshuis, M.D., Grand Rapids, Mich.

Business Manager—F. C. Warnshuis, M.D., Grand Rapids, Mich.

Publisher, The Council of the Michigan State Medical Society, Grand Rapids, Mich.

Owners: The Michigan State Medical Society.

Known bondholders, mortgagees and other security holders, holding 1 per cent. or more of total amount of bonds, mortgages, or other securities: None.

(Signed) Frederick C. Warnshuis.

(Signature of editor, publisher, business manager or owner)

Sworn to and subscribed before me this 14th day of March, 1913. T. Wm. Hefferan,

Notary Public in and for Kent County, Mich.

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, JUNE, 1913 No. 6

Original Articles

FLOATING CARTILAGE IN THE KNEE-JOINT *

CLARK D. BROOKS, M.D.
DETROIT

The bones entering into the formation of the knee-joint are the condyles of the femur above, the head of the tibia below and the patella in front. These bones are connected by ligaments, some of which are placed on the exterior of the joint, while others occupy the interior.

The knee-joint is one of the least secure of any of the joints of the body. It is formed between the second largest bones; the amount of the strain which can be brought on it is considerable, and the range and variety of motion which it enjoys is great. One or the other of the semilunar cartilages may become displaced and caught between the femur and tibia. The accident is produced by a twist of the leg when the knee is flexed, and is accompanied by a sudden pain and fixation of the knee in a flexed position.

The cartilage may be displaced either inward or outward. The cartilage becomes lodged in the intercondyloid notch, or outward, so that the cartilage projects beyond the margin of the articular surface. The occurrence of the so-called loose cartilage is almost always confined to the knee, although loose cartilages are occasionally met with in the elbow, and rarely in some other joints. Many of them occur in cases of ostia arthritis in which calcareous or cartilagenous material is formed in one of the synovial fringes and constitutes the foreign body and may or may not become detached. In other instances they have their origin in the exudation of inflammatory lymph and possibly, in some rare instance, a portion of the articular cartilage or one of the semilunar cartilages become dislocated and constitute the foreign body. The history of these fragments after separation is interesting; there is no doubt but that they increase in size either by the addition of fibrous tissue and by deposits of layers of fibers from the synovial fluid, or to deposits of lime salts.

ETIOLOGY

The etiology of loose or movable bodies in the knee-joint is not settled. Many cases are unquestionably the result of trauma, and are found to be from detached synovial fringe or detached osteophytes. They may be loose or attached by a long or short pedicle. The defect is usually situated on the internal condyle, because when the knee is flexed the patella does not protect this in so complete a manner as it does the external condyle.

SYMPTOMS

The symptoms may be marked and, to a degree, almost pathognomonic. The most characteristic symptom is the sudden occurrence of pain in the joint, frequently so severe as to cause syncope, and with this pain there is a "locking" of the joint. The leg is usually slightly flexed, which is perhaps due to the interposition of the floating body between the articular surfaces or between the bone and the capsular ligament. As a rule, the larger the body the less acute the symptom; while with smaller bodies we have, in addition to more severe pain, the likelihood of more frequent attacks. The locking may last only a short time or may last hours. An acute synovitis follows, which may continue for weeks. Between the attacks the joint is normal. With the presence of a palpable mass in the joint or in connection with the joint, our diagnosis is made. Damaged or displaced semilunar cartilages are perhaps the most frequent condition confused with the free or loose bodies.

The condition was first described by Hey[1] of Leeds, in 1803, and was called "Hey's Internal Derangement of the Knee." In 1885, Mr. Armandale of Edinburgh operated for the relief of this condition.

* Read at Harper Hospital Staff Meeting, February, 1913.

1. Cited by Connell, Annals of Surgery, iii.

DIAGNOSIS

Accidental injuries play an important part in the history of these cases; such accidents may detach portions of cartilage which may cause symptoms years after. Locking is always present. In the interval between the seizures, the joint may appear perfectly normal. In the history of the accident we expect a story of outward rotation of the limb while in a semiflexed position, or of a considerable strain thrown on the internal lateral ligament, or of a direct injury to the ligament or cartilage of the affected side. The subsequent history of these patients is that of sudden locking of the joint with pain and swelling. Each locking causes fresh trauma; the stronger the movement at the time of the occurrence the greater will be the damage and the consequent reaction. Another sign of great value is the feeling of the interruption of the smooth movement of the joint during passive flexion and extension. It happens most frequently during extension when that movement is nearly complete, and gives the impression of the bones jumping over an obstacle.

PAIN

Pain always accompanies the fixation and all succeeding accidents. After the acute pain passes off, marked tenderness can always be detected on examination of the edge of the articulation at the point of rupture; patients tend to restrict both flexion and extension. Undue movability of a cartilage, the evident projection of an edge, or the presence of a depression, are positive signs of displacements. The edges of the cartilage should be examined with the joint in various stages of flexion, the finger being kept in position to observe any changes occurring in the outline during movement. The x-ray will show these bodies if they are composed of calcareous material, but it usually does not show the loose cartilages.

TREATMENT

Formerly, the recognized method of treatment was to fix the limb and treat the accompanying synovitis—afterward allowing the patient to resume the use of his limb with the support of an apparatus to limit flexion and extension.

With the advent of aseptic surgery this treatment is no longer carried out; all loose cartilages or bodies should be removed by operation as soon as a diagnosis is made. The methods of opening the joint vary, and should be suited to the individual case. Trauma at the time of operation should be avoided—even the gloved finger should not touch the wound. It is of great importance to make sure that the suture of the synovial membrane is made secure and with serous surface to serous surface. The limb is put up in extension. Passive motion and massage of the limb are commenced at the end of a week. The splint is removed and the patient is allowed to use the joint during the third week. Operations of this character should never be performed unless under the most favorable conditions and by competent surgeons and trained assistants. If such precautions are observed, the operation not only removes the pathology, but at the same time does not diminish the usefulness of the limb.

Plate 1.—Male, aged 42. Has complained of pain, infrequent locking and swelling in knee for two years; the swelling has increased gradually of late. Examination showed a much swollen knee with movable bodies in the joint evidently setting up the arthritis. One large piece and one smaller cartilage were removed at operation; the larger cartilage had undergone calcareous infiltration, as seen by the x-ray.

REPORT OF FIVE CASES

A detailed history is not given except in the joints bearing on the diagnosis. The history of these cases are typical of this condition, yet two of them had been going about for years with crippled limbs before a diagnosis was made. All of these cases were in males.

A history of injury was elicited in three. Injury of over two years' standing obtained in two

cases. All the cases did have pain and locking with flexion at periods varying from a few days to several months. In two cases, with long-standing loose cartilage, there was a co-existing chronic arthritis. In the cases operated on by the writer two pieces of cartilage were removed. in three cases operated on by Dr. Angus McLean, one piece of cartilage was removed. In Case 5 (see cut), operated on by Dr. Angus McLean, there were two pieces of cartilage; one was very large and contained calcareous material, readily seen with the x-ray; both of these pieces were in the joint. All the patients made perfect recovery and without subsequent joint symptoms.

307 Washington Arcade.

THE CATARACT OPERATION *

J. G. HUIZINGA, M.D.
GRAND RAPIDS, MICH.

The Von Graefe operation with various modifications of a minor character is the operation followed by the majority of surgeons to-day and deservedly so. The position and direction of the corneal incision are not of sufficient importance, in my judgment, to warrant any extensive discussion. Good results are obtained by any one of them if the surgeon has the required skill. The iridectomy is considered by some as very desirable, and by others as equally undesirable in all but a small percentage of cases.

The advantages of an iridectomy are: Easy delivery of the lens, and because of this, less danger of loss of vitreous; less danger of hernia of the iris or of the iris adhering to the corneal wound; less danger from post-operative glaucoma and increased facility of ridding the eye of lens debris. The disadvantages are: Unnecessary traumatism to iris with increased danger of post-operative iritis and iridocyclitis; greater danger of infection; an unnecessarily large pupil resulting in more or less glare; decreased acuity of vision, and a prolonged operation. With such advantages and disadvantages, no hard and fast rules can be laid down to govern all operators or all cases. If an iridectomy is required and if the necessity for this can be determined in advance of the time of the operation, then the advantages of doing this part first, several weeks before the cataract operation, are sufficiently great to justify dividing the operation into two sittings. If a surgeon has had considerable experience, has a good surgical technic and a calm patient, the operation without iridectomy will bring better results so far as ultimate vision is concerned and to that extent is to be commended.

The use of a conjunctival flap is a distinct advantage and is commended as a good routine procedure. Where the operation has been a prolonged one or where there is great danger of loss of vitreous or of prolapse of iris, or where the patient is nervous and there is danger of spasmodic and forcible contraction of the orbicularis, the Kalt suture will prove of great service.

The incision in the anterior capsule has been performed in various ways and different parts by different surgeons. The object of the contenders of the various methods is one and the same, viz., to expedite the delivery of the lens and to facilitate the clearing out of lens debris as perfectly and as rapidly as possible.

In the vast majority of cases secondary cataracts are the result of retained lens debris and adhesion of the remnants of the anterior capsule to the posterior capsule. Secondary cataracts appear to follow in about 25 to 30 per cent. of all ordinary cataract operations. The dangers due to secondary cataracts by reason of increased irritability and congestions and the relatively poor results obtained following operations, even in the hands of the most skilful surgeons, warrant a close and careful study. For more than sixteen years the writer has experimented and studied the various methods for preventing this unfortunate complication. Seventeen years ago I made my first attempt to remove the cataract in its enveloping capsule. I knew nothing of the Smith Indian method at that time.

AUTHOR'S OPERATION

My method consisted in severing the suspensory ligament as nearly as possible all around the crystalline lens and then by means of a shark's tooth loop inserted underneath the lens, into the vitreous chamber, I lift the lens upward through the pupil and draw it out. While I do not recommend the operation, yet I wish to say that some very satisfactory results were obtained. There was, of course, considerable loss of vitreous as well as an increased inflammatory reaction, but I have learned not to fear the loss of considerable quantities of vitreous as I used to do. The injection of normal saline solution into the eyeball where there has been large loss of vitreous has been accompanied by splendid results. Owing to the increased inflammatory reaction, however, I have never felt justified to continue this method, and for that same reason I do not recommend the

*Read before Ophthalmic section of Michigan State Medical Society at the 47th annual meeting, held at Muskegon, July 10 and 11, 1912.

Smith Indian operation. My experience with this latter method has been similar to that of many other surgeons in America. It is an operation that should not be attempted except by surgeons of large experience, so that if any unlooked for complication should suddenly appear, the surgeon by reason of such large experience will immediately know what course to pursue.

The very considerable manipulation of the eyeball required by this operation does produce a very decided inflammatory reaction in the eyes of Americans at least. According to the reports from India, the Hindoos do not seem to suffer in this respect as Americans do.

It is not an uncommon thing for Major Smith to operate and let the patient walk home or to the home of a friend or relative immediately afterwards, and suffer no apparent harm. That race seems to bear injuries and operations to the eyes with less danger than do either Americans or Europeans, and what would be permissible and advisable to a Hindoo may be dangerous and injudicious to an American.

Comparing the results obtained, between the Smith Indian method and the removal of the lens by division of the ligament as well as the ultimate results of the cases after the operations, I am inclined to prefer my own early attempts to those advocated by Major Smith.

The amount of vitreous lost and the degree of inflammatory reaction is, if anything, less in my operation than in that of Smith, and in the subsequent healing of the wound there is no difference.

The introduction of instruments into the eye need not be objectionable if proper aseptic precautions are observed.

SECONDARY CATARACTS

Whatever cause there may be in the formation of secondary cataract (and they are many and varied), there is one cause at least that to a very considerable degree can be prevented. The presence of lens debris either in the chambers of the eye or in the pocket formations of the sack-like remnant of the capsule, should receive more consideration than it has heretofore.

It is established beyond controversy that this is one of the chief causes of secondary cataracts. The more completely we rid the eye of lens debris the less the danger of subsequent opacities. It is with this object in view that certain surgeons have advocated differently shaped and placed incisions in the anterior capsule, and it is for the same reason that the writer advocated what may be called complete capsulotomy of the anterior capsule. The operation and the instruments required for it were devised by the writer in total ignorance of similar work being done by Dr. Francis Valk of the New York Post-Graduate School. Dr. Valk very kindly sent me his reprints, which resulted in correspondence and the comparing of notes.

Dr. Valk's claims to priority are well established, and his clinical opportunities are so much larger than mine, that it was a great pleasure to note his successes. His reports show that he has performed the operation over two hundred times and recommends it highly.

THE OPERATION AND ITS INSTRUMENTS

The swivel cystotome was devised for the purpose of cutting through the anterior capsule, excising it completely by making the line of incision circular and parallel with and just inside of the margin of the crystalline lens. Any one familiar with the Ballenger swivel knife for the submucous resection of the nasal septum, will immediately see the advantage of the application of the principle of that instrument to the problem under consideration. It was from that instrument that the writer obtained his idea of a swivel cystotome. It will permit the making of a circular cut encircling practically the entire anterior capsule. The edge of the knife must be as sharp as it is possible to make it. With a dull knife the operation will be impossible.

A sharp tenaculum hook and a sharp tenaculum forceps are of advantage though not absolutely necessary. The writer believes that the anterior capsule can be more readily grasped by means of either of these than with the ordinary capsule forceps. The points of the tenaculum forceps are directed downward so as to more readily enter the capsule. These points must be very sharp.

THE OPERATION FOR CATARACT

The incision in the cornea or at the sclerocorneal margin with or without iridectomy, according to the requirements of the particular case or the judgment or choice of the surgeon, is made as usual. The swivel cystotome is introduced into the eye with the cutting edge flat or sideways so as not to injure the iris or the capsule.

It is pushed straight across the pupil and through it down and under the iris, opposite the corneal incision, up to a point as near to the margin of the crystalline lens as possible without coming near enough to the suspensory ligament to injure it. The handle is then rotated on its long axis so as to bring the point of the cystotome into contact with the anterior capsule and pierces

it. The knife is then made to describe a circle of the largest possible diameter without going beyond the margin of the lens. The incision, if properly made, is circular, without interruptions and parallel with the margin of the lens. In making this circular incision the point of the knife will be hidden behind the iris to varying degrees of depth at different steps of the procedure. When approaching that section of the circle corresponding to the corneal incision, it is necessary, if an iridectomy has not been performed, to draw the iris out of the way of the advancing cystotome with a blunt iris hook so that the iris may not be injured and to prevent the iris from forcing the point of the knife out of its prescribed course.

It is absolutely necessary that the beginning and ending of the incision be continuous and that the knife engage the capsule at every point of the circle so as to leave no undivided gaps to hold the capsule and prevent its proper delivery. If the operator is not sure that the beginning and ending are at the same point (and no one can always be sure of that) it will be well for the end of the incision to overlap or parallel the first portion and then, by a slight movement at right angles, to unite the cuts. If this step of the operation has been properly performed the exsected anterior capsule can be removed en masse by means of the tenaculum hook or the tenaculum forceps.

The delivery of the lens will be accomplished by the usual method. The exsected segment of the capsule may be left to be delivered at the time of and together with the lens, but it is best to remove it separately and thus be sure that it is out. If left to be delivered with the lens it may rub off and be lost in the anterior chamber when one would have to fish for it. The usual flushing out of the anterior chamber with normal saline solution, the closing of the wound, the toilet and the subsequent after-treatment are in no ways departed from.

Irrespective of the advantages or disadvantages of an iridectomy so far as the delivery of the lens is concerned or the subsequent vision obtained, an iridectomy is an advantage in this operation. It enables the operator to make a much better circular incision and does less violence to the iris by the instrument rubbing against its pupillary edge than without an iridectomy. It is not necessary, but it is an advantage.

Extreme care must be exercised to prevent the delivery of the lens until the entire section has been completed. It is well known that at times the lens will expel itself, at least partly, as soon as the capsule has been incised. This unfortunate complication would prevent the purpose of this operation, as it would practically be impossible to excise the anterior capsule after the delivery of the lens. This can be prevented by an assistant holding the speculum and drawing it away from the eyeball as far as possible without danger of withdrawing it altogether. Traction of this character produces a suction effect within the eyeball and tends to hold the lens *in situ* until the surgeon is ready to deliver it. Any assistant in this work must be an expert and preferably a surgeon himself.

LEGAL ASPECTS PERTAINING TO THE MEDICAL PROFESSION *

HERBERT V. BARBOUR
DETROIT

INTRODUCTION

a. Present conditions as illustrated by remarks of Dr. Howard A. Kelly of Baltimore.

b. Some ways in which a physician may safeguard himself against malpractice suits before operation.

c. Action to be taken when suit is threatened or commenced.

d. When a physician is liable for malpractice and the evidence necessary to sustain judgment—

1. Expert testimony necessary, citing case of Ferrell v. Haze.
2. The doctrine of *res ipsa loquitur* does not apply.
3. Liability for assistants.
4. Liability for acts of person.
5. Liability for acts of nurses.
6. But must be judged by members of his own school.

e. Operations without consent.

f. The Statute of Limitations.

g. The remedy for existing conditions.

PRESENT CONDITIONS AS ILLUSTRATED BY REMARKS OF DR. HOWARD A. KELLY, BALTIMORE

As illustrating conditions as they to-day exist and the effect on men in your profession of high standing, I can do no better than quote from a recent article written by Dr. Howard A. Kelly of Baltimore, and which appeared in *The Journal of the American Medical Association.*

He entitled his article "The Menace of Irrational Legal Processes," in the first paragraph of which he states:

"We have all recently passed through a distressing experience here in Baltimore on account of an outrageously unjust decision of our Court

*Read before the Wayne County Medical Society, on Monday, April 21, 1913.

in a malpractice suit against Dr. Guy L. Hunner. My own utter disgust with the methods of the legal profession is such that if I were to act on the impulse of the moment I would abandon my surgical work and retire to some distant field to escape as far as possible from the nauseating associations with courts and their wearing delays and postponements and their process of flagrant injustice."

Later I wish to revert to this paper when discussing some cures for the existing conditions.

SOME WAYS IN WHICH A PHYSICIAN MAY SAFEGUARD HIMSELF AGAINST MALPRACTICE SUITS BEFORE OPERATION

I take it that you are all interested in knowing just what constitutes malpractice in the law. The following definition has been sanctioned by many courts—that malpractice is nothing more than negligence which in the case of a physician consists in doing something which he should not have done in the treatment of a case, or in omitting to do something he should have done.

Liability for the doing or failure to do some act is based on contract expressed or implied, that is, in the absence of a special contract a physician impliedly contracts that he has the reasonable degree of learning and skill ordinarily possessed by physicians, and that he will use a reasonable degree of care in the exercise of his skill and his best judgment, and he is not responsible for unsuccessful treatment unless it results from his failure to exercise ordinary care or skill.

PROTECTIVE MEASURES

If a major operation is indicated, especially double oophorectomy, a consent in writing should be signed by the patient, in the presence of witnesses, who should sign as such. And should the patient not speak English, then the agreement should be read and explained by an interpreter, who in turn should sign his name, and stating that he had translated the agreement and that the patient understood it.

Another form is to obtain the consent to do whatever is necessary in the judgment of the physician, and have the consent signed and witnessed. Especially would I urge this in charity cases and among the poorer class of patients.

The result of the failure to adopt this practice was brought home to me very forcibly in a trial recently of one of your members. The surgeon diagnosed the case as an encysted ovary; his diagnosis proved correct, and eventually both ovaries were removed.

The patient claimed she had never consented to the operation and brought suit for damages. There was also an allegation of malpractice in the declaration, but the real claim was based on an operation without consent, or an assault and battery.

The patient was a foreigner, but fortunately the doctor and his assistant spoke German, and both testified that she understood the nature of the operation and consented. The first trial resulted in a verdict for two thousand dollars against the doctor. A motion for a new trial was granted and a second trial was had; the verdict this time being one of no cause of action. Now if the doctor had obtained a written consent, also signed by a German interpreter, a verdict never would have been rendered against him in the first instance.

PATIENT'S STATEMENT

Another very wise thing is to make a statement in advance to the patient, as nearly as possible, of the nature of the operation to be performed. This statement should be made in the presence of the nurse or assisting physician, and have some record of this statement placed on the hospital charts, which charts, by the way, are generally too brief. A case has been started in this city recently which illustrates the value of the practice just suggested. The suit is against two reputable doctors for the failure to remove an appendix. The fact is that so much pus was present when the operation was made that it was considered dangerous to do more than drain it, and I noticed recently that Dr. Carstens made the statement at one of your meetings that it was good surgery to do just what was done in this case.

However, suit has been started against both doctors, the one who performed the operation and the physician who assisted; the theory of liability being that the doctors stated they would remove the appendix, and that their failure to do so was negligence, and that much suffering resulted therefrom, and another operation is now necessary.

In my judgment it will be difficult for the plaintiff's attorney to get his case submitted to the jury, for in order to do so, the plaintiff must show by expert testimony that it was negligence not to remove the appendix, and further that the doctors stated that they would remove it. Now the doctors say that they told the patient that it would perhaps be necessary to do just what they did, and that they made no statement about positively removing the appendix. If some record had been made before the operation, which now appeared on the chart, it would practically dispose of the plaintiff's contention. I cannot, there-

fore, overestimate the value of keeping exact records of your treatment of a case, and keeping them on file for years after the patient has been treated, especially since it has been held that a child who has been operated on at the age of 11, may, after reaching the age of 21, bring suit for damages resulting from the operation.

Another precaution is noting carefully the time of a call so that if suit is brought for your failure to respond promptly you will know definitely when the call came and what time you responded. If it is impossible to respond promptly where you have contracted, either expressly or impliedly, to care for the patient, you should so advise the patient, and see that some one else is sent, unless from your diagnosis you are reasonably sure that you will have time to get there after treating the other patient.

I speak of this especially, since two suits have come to my attention recently, based solely on the failure to respond promptly to a call. Of course, if a doctor is engaged in treating another patient that he cannot leave when the call comes, his duty is then to the patient under treatment; but he should advise the one calling that it is uncertain when he can arrive, and that some one else should be called; that is, if his delay may result in suffering or other damage.

A case of this nature is difficult to defend, for if witnesses testify that the doctor was called on several occasions and failed to respond promptly, although promising to do so, the question will be left to the jury as to whether the doctor had been called and whether or not damages resulted from his failure to arrive in time. This is one of the few cases where expert testimony would not be necessary to sustain a verdict against a doctor, except, perhaps, to prove the damage.

A doctor, of course, may refuse absolutely to attend a case if he wishes, however inhuman his action may appear, and even if he is the only available physician, and even though the patient, or another, offers to pay the customary fee for the service asked. When this point was first decided it was urged by attorneys for the plaintiff, that in states where physicians had to register and be licensed, they were compelled to render service when called. The court held, however, that the law was a preventive and not a compulsive measure; that the license granted under the law was a permission to practice medicine, but that the state does not require, and that the licensee does not engage, that he will practice at all, or on other terms than he will choose to accept. But if the doctor does accept the employment, then the law holds that a contract exists, and a physician is held for the non-fulfilment, as any other individual, except that special rules of evidence have gradually grown up covering the trial of civil malpractice cases, in order to protect physicians against injustice.

Another suggestion as to preventive measures is to impress on the nurses and assistants to use care to see that sponges are all accounted for. Because of the frequent discovery of sponges in the abdomen of patients subsequent to operations, and the ruling of courts, the question has become one of vital importance, not only to the operating surgeon, but to interns, nurses and other assistants.

In deciding this question, and this was one of the questions raised in the case of which Dr. Kelly speaks, the courts, especially *nisi prius* courts, have generally adopted the view that leaving a sponge in the patient's body at the time of operation was conclusive of negligence, and I think I can safely say that that is the prevailing rule in the courts of this country to-day. However, there is hope, for when this question was recently before the Supreme Court of Ohio, it was given a very careful examination and a new rule adopted there. In discussing the case the court says:

"Our first impression was that a sponge could not possibly be thus left in the body of a patient by an operating surgeon without personal negligence on his part. But our examination of the evidence before us, particularly the expert testimony of distinguished surgeons, convinces us, not only that our first impression was wrong in general, but also, under the circumstances of this particular case, the defendant in his own conduct may have very well exercised all the care the law imposed on him. The actual negligence if any (and there must have been negligence somewhere), being attributable probably to some member of the hospital staff."

The method of counting sponges was explained in detail — how they were first counted by the person in charge of the sterilizing department, and placed in packages and not opened until brought into the operating-room, where they were again counted; that when they had been removed after the operation, a count is again called for, and if the number used and those not used correspond with the original number they are considered accounted for. The fact was further shown that it would be impossible for the operating surgeon to personally make an exploration after the sponges for the reasons given by the defendant; that is, extra handling of the intestine or abdominal organs would add greatly to the shock; and secondly, if there has been pus there is danger of carrying infection to other organs than those primarily involved. This

again might neeessarily prolong the operation and add to the shoek and lessen the ehance for recovery.

The eourt in this case held that if the surgeon had the right to direet and control what the assistants and nurses did even though they were furnished by the hospital, they would then be his agents and he would be responsible for their negligence. But, if the hospital authorities had sueh right of control, then the defendant would not be responsible, even though the nurses and assistants were negligent. A ease involving this point was reeently tried in the state of Michigan, but it was not decided, as a verdict was directed for the defendant on another point.

I take it that all of you have temporary control and direetion over the assistants and nurses furnished to assist in operations so that you might be held responsible for any act of negligence of theirs at the operation. Henee, the best practice is to insist on well-trained interns and nurses.

Of course, a doetor could seeure a waiver for any negligence of the nurses or assistants furnished by a hospital if the patient was willing to sign sueh a waiver, but I feel sure that none of you would wish to ask your patients to do so.

In conelusion of this first topic, I would not advise the taking of a statement waiving all claims for damages that may result, as such a waiver has been held voidable, and its existenee would be an indication that the physician anticipated an unsuccessful result, and henee, should not have undertaken the operation.

ACTION TO BE TAKEN WHEN SUIT IS THREATENED OR COMMENCED

Suppose now that after taking all possible measures to protect yourself, a suit for malpractice is threatened or commenced, what would a physician do to protect himself and to aid the attorney who is to defend him?

Perhaps the best suggestion is to tell you to *keep quiet.* The defense of many cases has been jeopardized by statements made or alleged to have been made by the doctor before or after an operation, and before and after suit is threatened or started. In themselves, the statements may have been harmless, but when passed along they always become grossly distorted. Just at present I am placed in an embarrassing position by a statement of a doctor defendant to the plaintiff's attorney, the last person in the world, of course, to whom he should have said anything.

The case arose over a fractured arm. The plaintiff claims the doctor did not tell him that the arm was fractured. The doctor states, and I think truthfully so, that he knew the condition of the arm and that it was at the request of the patient he did not set it; that the patient told him he wanted it dressed and bandaged, and he would have it set by his own doctor when he reached his home, whieh was not far distant. It seems the patient did not go to his doetor at once, and that the arm became badly swollen, and whether his own doetor ever told him it was or was not fraetured, we ean never know, as the doctor has since died. Then, just before the cause of action was barred by the statute of limitations, the patient commenced suit against the doctor who first attended him, and the prineipal eharge in the deelaration is that the defendant told the patient that his arm was not broken, and that the other doctor relied on this statement, and that the patient now has a "flail arm." To sustain this eharge the plaintiff's lawyer says that he could take the stand and swear that the doetor defendant told him that he advised the plaintiff his arm was not broken.

If this statement was made to the lawyer, and he cannot deny, but only explain it, his case will be weakened at the very outset.

Besides *keeping quiet,* you should immediately send a notiee of the suit or threatened suit to Dr. F. B. Tibbals, Detroit, and also the insuranee eompany, provided you earry indemnity insuranee; a subject which I shall take up later. Then, for your own benefit make a complete statement in writing of every material fact and obtain similar written statements from others, who have any knowledge of the operation or treatment, also carefully preserve all records of your treatment. This will serve to refresh your memory at the time of trial, which is generally not reached in less than a year after the summons is issued.

Next, find out if possible who the doctor is who followed you on the ease, and you can perhaps discover through the aid of the Medieolegal Committee what his testimony will be at the trial and be prepared to combat it.

As I have stated before, in almost every malpractiee case in this state it is necessary for the plaintiff to prove his claim by expert testimony; that is, a licensed physieian of the same sehool of medicine as the defendant doctor, must swear to evidence of malpractice.

WHEN A PHYSICIAN IS LIABLE FOR MALPRACTICE AND THE EVIDENCE NECESSARY TO SUSTAIN JUDGMENT

Generally the plaintiff can secure a witness in his behalf, and frequently several, who have never seen the case, but will make the right answer to

the hypothetical question. It then becomes necessary for the defendant to secure expert witnesses in his defense and I can assure you that the successful defense depends largely on those disinterested witnesses; great care should be made in their selection. Procure some one who will be absolutely fair, not too willing to talk, and not too anxious to show his learning to the court or jury. In other words, an expert witness should not talk too learnedly, although he should possess abundant knowledge, should never use a technical term where it can be avoided, should be fair and convey the impression of fairness to a jury.

Not long ago I represented one of your members in a malpractice suit, and while the doctor was not in the slightest to blame, the case was a very serious one, as hernia followed the operation, and the patient had evidently refused to have it repaired in order that she might exhibit it to the jury at the time of the trial and arouse sympathy. Dr. Carstens very generously agreed to give whatever time was necessary to assist the doctor in his defense, and he proved to be an excellent selection. He explained the necessity of the operation so clearly, and the probable consequences if the operation had not taken place, and admitted frankly that hernia might follow any operation, and he admitted with the same frankness that the same thing had happened to him, and he believed that it had to all surgeons who had operated with great frequency for many years. He compared the failure of flesh and skin to properly grow together with the failure at times of bones to knit, and admitted that in many cases it was impossible to explain why.

The point I wish to make in speaking of this is that it was the fairness, the directness, the unassuming air, the avoidance of technical terms and the clear statements of Dr. Carstens that made the jury see and understand, and helped us so materially in the defense of the case, and undoubtedly influenced the jury in their verdict of not guilty. This is the form of the verdict in an action of assault and battery, and as I have said, it is an assault and battery, under some circumstances, to operate without the consent of the patient.

EXPERT TESTIMONY NECESSARY

I wish to explain here, just briefly, the necessity of expert testimony as shown in the recent Michigan case of *Ferrell vs. Haze,* and how generally it is impossible to have a case submitted to the jury unless some physician has given evidence of malpractice.

In this case the attorney for the doctor asked the court to instruct the jury as follows:

"The question whether the loss of plaintiff's foot was attributable to anything that the plaintiff claims the defendant did or omitted to do, is a scientific question which the jury cannot determine for itself, and can only be answered by an expert; and inasmuch as no expert or medical man or surgeon has stated that the loss of the foot, in his opinion, came from anything the defendant did or omitted to do, therefore I charge you that you cannot take the loss of the foot into consideration in this case or hold the defendant liable therefor."

The trial judge refused to give the instruction and a verdict was returned for the plaintiff. The Supreme Court held that this instruction should have been given and reversed the case.

THE DOCTRINE OF RES IPSA LOQUITUR DOES NOT APPLY

The doctrine of *res ipsa loquitur* has often been spoken of in medical cases and generally held not to apply. In other words, *the failure to cure or even improve a patient is not in itself any evidence of negligence on the part of the physician.* I will speak further of this point in discussing the education of courts.

LIABILITY FOR ASSISTANTS

The question has often been asked me whether the alleged lack of skill or negligence of a surgeon performing an operation could be imputed to a physician who assisted, and especially where the attending physician had recommended and hired the surgeon for the operation. This question has been squarely passed on in this state in the case of *Brown vs. Bennett.*

Here an action of trespass was brought against two defendants, one of whom had advised the operation, made arrangements therefore and procured the services of the surgeon to operate. One of the allegations of the plaintiff was that a sponge had been left in the abdomen and damage resulted. A joint judgment was obtained against the doctors in the lower court and an appeal was taken, and in reversing the judgment, the court said:

"The defendants were not engaged in a trespass, neither was employed by the other. Each was required to exercise ordinary care and skill, but direction and control of the operation was with one man. Whether responsibility for what occurred is rested upon contract or upon negligent performance of duty, there is no rule of law which under the undisputed facts imputes want of care or skill on the part of one to the other."

The case was reversed and a new trial ordered; but it has been held, and is perhaps the general

rule, that a surgeon is responsible for the negligence of his assistant, and that the assistant is also liable for his own negligence.

Courts have very generally held that partners in the practice of medicine are all liable for injury to a patient resulting from the negligence of any one of the partners acting in the scope of their partnership business.

In a case for malpractice in the courts of Minnesota against a firm of doctors, it was said:

"The partners in the practice of medicine are sureties for the faithful performance of their engagements by each of them."

And in Iowa one partner was held liable for the negligence of another partner in superintending the return of a patient from the operating-room of a hospital to her apartment.

LIABILITY FOR ACTS OF NURSES

A physician is generally not liable for the failure of a nurse to properly administer medicines or treatment, if he has used reasonable care in supervising her work. But it is good practice for a physician to see that his instructions to the nurse are in writing, and that his calls to look after the patient are always noted on the chart. These written evidences are of great value in determining whether the physician exercised proper supervision.

It has also been decided that if a physician leaves his practice to another and recommends him to his patient that he is not responsible for the acts of such physician, provided he was not aware of any reason why he should not have made the recommendation, or provided the person recommended was not under his control.

OPERATIONS WITHOUT CONSENT

Where a patient is in possession of his faculties and in such physical health as to be able to consult about his condition, and where no emergency exists making it impracticable to consult with him, his consent is a prerequisite to an operation. However, if he voluntarily submits and there has been no misrepresentation, most courts will hold that his consent may be presumed. A more difficult question arises where there is an emergency, for then a physician may be liable if he does operate, and vice versa.

It has been held and undoubtedly correctly, that where an emergency arises calling for immediate action for the preservation of life or health of the patient, and it is impracticable to obtain consent, it is the duty of the physician to perform such operation as good surgery demands without such consent.

In the case of *Luka vs. Lowrie,* decided in this state, it was held that a surgeon is not liable for amputating the foot of a child without first obtaining the consent of the parents, where the foot was crushed and instant action may have been necessary to save the life of the child, and the parents could not have been consulted without delay.

Another question often arises as to the duty of a physician if in the course of an operation he discovers conditions not anticipated before the operation was commenced, and which, if not removed, would endanger the life of the patient.

The Supreme Court of Minnesota held that under these circumstances the physician would be justified in extending the operation to overcome the conditions even though no express consent had been given. This is perhaps the general rule, but to be absolutely safe, I would always advise obtaining consent in writing before performing any major operation, especially among the poorer class of patients.

STATUTE OF LIMITATIONS

An important change in our law is the amendment shortening the time in which malpractice suits may be instituted from three to two years.

It is also important to remember that the statute of limitations runs from the time of the injurious act complained of, and not from the time when the damage is developed. It has been held that an action for malpractice survives in favor of an executor, but it has never been decided in this state, whether or not, if the deceased lives for one year after the alleged act of malpractice, the statute runs two years from the appointment of an administrator, or whether the year that has already elapsed will be counted against such administrator or executor. It seems to me that the courts should hold that it runs from the time of the act performed, and ceases at the time of death, and commences to run immediately again on an appointment of an administrator.

THE REMEDY

We now come to the question of the remedy for existing conditions, and I want to again refer to the remarks of Dr. Kelly. In speaking further of the case in which he was witness he says:

"Dr. Hunner operated on a woman with a large perinephritic tuberculous abscess. The lower pole of the kidney was calcareous and tuberculous; he did a remarkable conservative operation, resecting the diseased portion and saving a good organ which has healed perfectly and given no further trouble. The surrounding tuberculous abscess cavity naturally demanded

prolonged drainage until it healed, in about seven months. During this period there was a trifle fecal drainage for a short time. Dr. Hunner in three days removed the substantial drain inserted by him at the operation, but his resident later left in the suppurating wound a tiny sliver of gauze just large enough to fill half an ordinary thimble. This appeared and was pulled out some weeks later by the physician at the patient's home in the country. A trap was then set for Dr. Hunner in the form of a letter complaining of carelessness and hoping that no axes, saws, etc., were still concealed in the wound. He replied indulgently, 'I am sorry we were so careless', and expressed the hope that there were no axes and saws, etc., still to be extracted, and advised her as to further conduct. The patient gradually in the intervening months developed a pulmonary tuberculosis from which she now suffers to a marked degree."

An alleged expert testified in behalf of the plaintiff that the tiny drain caused both the fistula and the pulmonary tuberculosis, and the jury brought in a verdict of $1,000 against the doctor for damages, notwithstanding the fact that the best surgeons of Baltimore testified in favor of Dr. Hunner. It was this verdict that made Dr. Kelly feel like retiring to some distant field.

In speaking of the consequences of such a trial he says:

"In other words, such trials with the publicity attending them, circulating unjust and distorted criticisms of the work of our best men, and implying that carelessness and neglect of patients are habitual, tend to influence the public against the profession and to make patients eager to search for fancied wrong and overanxious to assess large damages for imaginary neglect."

And, in closing, he says:

"We see here the outcome of our nation-wide utter neglect in attending to the ethics and the morals of the communities in which we live, the natural sequence of being too busy with the subordinate questions of 'science' and making money to think of the infinitely more important questions of ethics."

There is a great deal of truth in what the learned doctor has said, but you will all notice that he has really failed to place the blame where it belongs. For had it not been possible to secure a surgeon to testify in answer to a hypothetical question in favor of the plaintiff, the court would never have submitted the case to the jury, and would have directed a verdict in favor of the doctor. I have nothing to say in favor of the lawyer who seeks such cases, *but you must all remember that it is only possible for that lawyer to succeed because he can generally purchase a favorable opinion from some member of your profession.* You are all more or less acquainted with the hypothetical question and the ability to always procure doctors who will answer it favorable to the questioner.

The hypothetical question was so humorously yet so correctly discussed in the *Saturday Evening Post* recently that I cannot refrain from quoting from it:

"The jury being chosen, the trial proper now begins and continues until the defendant's cash reserve runs low. The big scene comes — the hypothetic question is brought in on a truck and is read to the alienists. In every murder trial where insanity is the defense, alienists are introduced. They should not be confused with the alienators who figure in divorce cases only.

"An alienist is a family doctor who hated the nightwork. He mounts the stand and the hypothetic question is read to him. A hypothetic question is organized on the same principle as a certain train that used to run on a narrow-gauge road down in our country years ago. You could climb aboard anywhere, go as far as you pleased, enjoy a pleasant nap en route and drop off at a point that looked exactly like the one where you got on. So it is with the hypothetic question. Outside of persons who were alienists by profession, I never knew but one man who ever tried to make out the true meaning of a hypothetic question. He came by this tendency honestly. It was in his blood. He was a cousin of the man who wrote the Lord's Prayer on the back of a postage stamp; and his uncle was the person who spent two years figuring out the number of seeds in a prize pumpkin in order to win a cash prize of five dollars.

"A good, long hypothetic question though, which reads the same backward or forward, will hold an alienist spell-bound by the hour, and when it is finished he invariably has the right answer. I never knew of an instance where the alienist failed to make the answer that was agreeable to the side for which he was working."

The ability to procure experts to answer questions in the way desired is such a well-known fact that it is useless for me to dwell on it. In most cases the doctors undoubtedly give honest opinions, *but if they would only refuse to testify against members of their own profession the services of a lawyer for your defense would be unnecessary.* But since it seems impossible to eliminate experts who testify against their fellow practitioners, some other remedies must be developed and some of these rest solely with your membership.

First, I would suggest higher qualifications to secure a license from the state, and also an examination of the fitness of a man in his profession before admitting him into this society, for if he is worthy of membership by qualification in character and education he is worthy of the defense and protection of your society.

Second, I would suggest a closer union among doctors. For instance, it is almost impossible to secure one lawyer to testify against another, while it is always easy to secure a doctor to testify against another, and furthermore, the surprising fact is that I find in nearly every malpractice case the suggestion of a suit comes from some one in your own profession.

This society is doing a great work in bringing the physicians closer together and making it very difficult for anyone to successfully prosecute a suit for damages even though a great many of them are started.

The next important thing to consider is how to educate the courts and perhaps in some cases, the jury. The courts generally do not seem to grasp or understand that the duty of the doctor is simply to exercise only his best judgment, and that the failure to cure is no evidence in itself of negligence. But as I have stated, some courts have recently seemed to grasp the idea of the defense and to have adopted certain rules for the trial of malpractice cases for the protection of physicians.

Justice Jaggard of Minnesota wrote an opinion which has helped to educate many other judges, and from which I am going to quote, as the learned justice grows fairly eloquent in his defense of the doctors. In reversing a case in the lower court, he said:

"Indeed, the peculiarities of the subject-matter with which medical men deal constitute another abundant justification for the exception. Those peculiarities concern, in the first place, the constitution of the human mind and body, and in the second place, the nature of his science itself. On the human subject-matter with which physicians have to do, the remarks of Woodward, J., in *McCandless vs. McWha,* 25 Pa., 951, have become classical. *Smother vs. Hanks,* 34 Iowa, 286, 11 Am. Rep., 141. Judge Upton has, however, improved them: 'The surgeon does not deal with inanimate or insensate matter like the stonemason or brick-layer, who can choose his materials and adjust them according to mathematical lines, but he has a suffering human being to treat, a nervous system to tranquilize, and an excited will to regulate and control. Where a surgeon undertakes to treat a fractured limb, he has not only to apply the known facts and theoretical knowledge of his science, but he may have to contend with very many powerful and hidden influences, such as want of vital force, habits of life, hereditary disease, the state of the climate. These or the mental state of his patient may often render the management of a surgical case difficult, doubtful and dangerous; and may have greater influence on the result than all the surgeon may be able to accomplish, even with the best skill and care, *Williams vs. Poppleton,* 3 Ore., 139, 147.

"Physicians and surgeons deal with progressive and inductive science. On two historic occasions the greatest surgeons in our country met in conference to decide whether or not they should operate upon the person of a president of the United States. Their conclusion was the final human judgment. They were not responsible in law, either human or divine, for the ultimate decree of nature. The same tragedy is enacted in a less conspicuous way every day in every part of the country. The same principles of justice apply. Shall it be held that in such cases, where there is a fundamental difference among physicians as to what conclusion their science applied to knowable facts would lead to, than what they, with their knowledge, training and experience are unable to decide, and what in the nature of human limitations, is not susceptible of certain determination shall be autocratically adjudged by twelve men in a box, or by one man on the bench, or by a larger number in an appellate court, none of whom are likely to have the fitness or capacity to deal with more than the elements of the controversy? All the court can properly do if an action for negligence should be brought in such a case would be to direct a verdict for the physician. In *Williams vs. Poppleton,* 3 Ore., 139, 145, Upton, J., said of a charge of negligence in the reduction of a dislocation: 'In cases like this the court and jury do not undertake to determine what is the best mode of treatment or to decide questions of medical science upon which surgeons differ among themselves.'"

Further discussing this same case, and bearing on the doctrine *res ipsa loquitur,* the learned judge quotes from an opinion of Judge Thayer and from an opinion of Judge Taft as follows:

Judge Thayer says:

"No presumption of the absence of proper skill and attention arises from the mere fact that the patient does not recover. * * * God forbid that the law should apply a rule so rigorous and unjust as that to the relations and responsibilities arising out of this noble and humane profession."

Judge Taft says:

"A physician is not a warrantor of cures. If the maxim *res ipsa loquitur* were applicable * * * and a failure to cure were held to be evi-

dence, however slight, of negligence on the part of the physician or surgeon causing the bad result, few would be courageous enough to practice the healing art; for they would have to assume financial liability for nearly all the 'ills that flesh is heir to.' If apart from the fact of death, there is no liability—and that is the conclusion in this case—that fact does not create it."

In the defense of a doctor in suits for malpractice the attorney should always try and educate the court, and at the outset of a trial furnish the court some sound decisions to read, to put his mind in a receptive condition. However, when experts can be procured to testify positively to malpractice, no matter what the opinion of the judge is, he is obliged to submit the question to a jury and a verdict very frequently is returned against the doctor, which brings me to the last point for discussion, and that is whether or not a doctor should carry indemnity insurance against suit for malpractice.

This question has been asked me so frequently that I feel justified in expressing my opinion, at the same time assuring you that I have no stock in any corporation insuring doctors (the risk is too hazardous).

In my opinion a doctor would be exercising good business judgment to carry a policy of insurance, such for instance, as that written by the Medical Protective Company of Fort Wayne, Ind., which provides for the payment of any judgment rendered up to $5,000, at a very small cost. Especially do I believe in carrying insurance at this time, for the Employees' Compensation Act, recently passed in this state, has robbed a certain class of attorneys of much of their former business, and they may now turn their attention to the doctors.

I would like to mention one other question, not for the purpose of discussing it, but in hopes of hearing it discussed or reading some comments.

The suggestion which I have in mind is how far this society should go in defending its own members where some member is convinced there is evidence of malpractice. In other words, should one of your members pass judgment on one of his fellow practitioners and express that judgment to the jury, or should it be left to the court and jury to say, as a matter of law, whether or not there is evidence of malpractice? Personally, I very much prefer the latter, for in my experience I have found that most malpractice suits are started after a physician has made demand for payment of his bill, or through the jealousy of some other physician.

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A REPORT ON ONE OF DR. FRIEDMANN'S NEW YORK CLINICS*

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I arrived in New York City a total stranger on March 19, 1913; my credentials were a few letters of introduction to some of the well-known medical men of that metropolis—one of them an editor, and another an author of international repute. It might have taken me much longer to gain the attention and courtesy I did receive, had it not been for these letters so kindly furnished me by one of my Grand Rapids confrères.

One of the first things I did after my arrival in New York was to go to the German Hospital, where I had the pleasure of meeting Dr. Meengs, a confrère whom I had known for a few years in Grand Rapids as a member of the Kent County Medical Society. He received me most cordially and I was exceedingly glad of this opportunity of renewing our acquaintance. Dr. Meengs gave me every assistance in securing the desired information concerning Dr. Friedmann. He introduced me to Drs. Seeligman and Kamerer, both very well known in New York circles. These gentlemen were of the opinion that it would be premature to pass any opinion in regard to Dr. Friedmann's method of treating tuberculosis and of the results thus far obtained.

The clinical observations that have been made from patients treated by Dr. Friedmann were not of a sufficiently satisfactory nature to allow one to draw any definite conclusions. These gentlemen, as well as most of the conservative element among the medical fraternity, maintained that so long as the United States government health officers were making a thorough bacteriological test and examination of the Friedmann turtle bacilli, we should refrain from making any hasty remarks or references as to the merits or demerits of his treatment until the United States government physicians were ready to make their formal report.

Some men, however, have been very severe; in fact, harsh, in their criticism of Dr. Friedmann. One man particularly, namely, Dr. Heinrich Stern of New York City, editor of the *Archives of Diagnosis*, without objecting to the publicity I might give to his statements, put his criticism in the following words: "He is not the first one to employ turtle serum in the treatment of disease in general and tuberculosis in particular. No proof has yet been forthcoming that he really uses turtle serum. He has not permitted anyone,

* Read before the Kent County Medical Society, April 23, 1913.

especially in the United States, to actually examine his injection-fluid, and we do not know what he really injects into the patients. Thus far, in treating tuberculosis in this country, Dr. Friedmann has personally given all the injections. Investigations concerning his claims are now being made by Professor Ehrlich of the Royal Institute of Serum Therapy at Frankfort. A definite report cannot be given short of one or two years, at least. Dr. Friedmann has applied for German patent rights, and until he receives them he very probably will not make known the composition of his injection material. Representatives of Dr. Friedmann are trying to procure United States patents covering the alleged invention."

Another man, connected with the laboratory of a well-known hospital, put his criticism in the following laconic sentence: "The whole thing does not amount to a row of pins." And yet, irrespective of these harsh criticisms, the general medical opinion is gradually growing in favor of Dr. Friedmann. I heard a prominent man state that he was sure Dr. Friedmann has discovered a new bacillus, non-virulent and atoxic in nature, derived from a tuberculous turtle, but, the doctor added, "We are not able, thus far, to judge as to its efficacy in curing tuberculosis."

Having read in the New York papers, the day I arrived, that a number of very prominent medical men had been refused admission to the Friedmann clinics, I was somewhat pessimistic as to the ultimate success of my trip in quest of the new treatment, and I feared that I might not succeed in procuring the serum I sought and might even be refused the privilege of attending one of Dr. Friedmann's clinics.

Knowing that Dr. Friedmann had treated several cases of tuberculosis at Mt. Sinai Hospital, I armed myself with a letter of introduction to one of the resident physicians, and, after a number of blunders in locating the place, I at last arrived at the hospital. My main object in going to this place was to form some preliminary opinion as to the results so far obtained from Dr. Friedmann's specific method of treatment. I learned that the German physician had inoculated a number of patients at this institution. To my great dismay and chagrin, the hospital physician to whom I had a letter of introduction was in the operating-room and could not be seen until noon. I applied at the regular bureau of information and informed the office attendant that I had come a long distance and was anxious to learn something regarding Friedmann's treatment and the results of clinical treatment so far obtained, and the present condition of the patients so far treated by Dr. Friedmann. Taking me for a reporter, the attendant was not at all communicative, but I soon discovered his mistake and informed him that I was a country physician from western Michigan and had come for the express purpose of investigating the Friedmann method of treating tuberculosis and intended—should I be convinced of its efficacy—to return home and treat a particular patient of mine, whose people had defrayed the expenses of my trip, providing I could secure the vaccine. In reply to my explanation I was informed that it was impossible to make any statement concerning these patients, as they were all under strict observation by government physicians, and until these officials made public their report, no other report could be given as to their condition. He added that Dr. Friedmann would not hold any further clinics at Mt. Sinai Hospital, giving me to understand that they were through with him at that hospital.

Understanding that Dr. Friedmann would treat a number of cases at Bellevue the following day, I went over to find out what chance I had of securing admission to the clinic and acquainting myself with his technic in giving his turtle vaccines, the dosage, the preferred site of injection, the selection of his cases, the time and the particular requirements for the second injection, etc. Before reaching Bellevue Hospital I met a friend who very kindly offered to give me a letter of introduction to Dr. Menas S. Gregory, a nerve specialist connected with this institution, and through whose courtesy I was enabled to secure permission to attend the clinic to be held the next day, at which time Dr. Friedmann was scheduled to treat thirty cases of tuberculosis.

When Dr. Friedmann arrived, promptly at 1 p. m., the amphitheater of the hospital was filled to its capacity, there being approximately two hundred physicians, from various parts of the country, in attendance.

Dr. Friedmann's personal appearance is that of a man about 35 years of age, well built, eyes keen and penetrating, every movement made with great precision. He appears extremely nervous, seemingly conscious that he is under the observation of many critical eyes. I was informed that Dr. Friedmann is a German Jew.

Before Dr. Friedmann began his treatments, a member of the Bellevue Hospital staff gave a brief résumé of the progress of the patients Dr. Friedmann had previously treated at Bellevue. Several of these patients were present and personally testified to the benefits of the treatment. Several patients reported the elimination of pain following treatment; three reported the absence

of night sweats; a number of them had gained in weight. It was conceded that at the point of injection a reaction, in the form of a slight swelling, appeared, but this, it was stated, almost invariably disappeared within a short time. One patient with a previous history of several hemoptyses, reported that none had occurred since treatment. The member of the staff making this report asserted, indeed emphasized the fact, that none of the patients treated by Dr. Friedmann had suffered any ill effects, this being considered a good indication.

Thus far Dr. Friedmann had given his vaccine injections or inoculations intramuscularly, but he now proposed to make a number of intravenous injections in addition to the muscular injections, expecting quicker results as compared with the gradual and rather slow improvement observed in the intramuscular injections.

The first patient, a girl of about 14 years of age, presented a lupus of the nose. She received one-half of one centimeter of the Friedmann serum in the gluteal muscles and one-tenth of one centimeter intravenously. (She left the hospital by the same elevator that took us to the main floor after the clinic was over.) The fluid used for intravenous injection differs, in its concentration from the serum used for intramuscular inoculations — therefore the difference in the amount of the dose. The region preferred by Dr. Friedmann for his injections is that of the gluteal muscles.

The technic followed by Dr. Friedmann for his injections does not materially differ from that of an ordinary hypodermic injection. All syringes and needles were thoroughly sterilized, a separate needle being used for each patient. The syringe was filled with an approximate amount of the serum, the air bubbles expelled, retaining the requisite amount necessary for the particular injection — one-half of one centimeter for the intramuscular and one-tenth of one centimeter for the intravenous injection. This being ready the gluteal muscle was palpated with the index finger, the point of injection indicated to the assistant, who painted a small area with tincture of iodine, after which, the needle pointing almost perpendicular to the place of inoculation, and avoiding the sciatic nerve, with a quick movement the needle was plunged into the deep gluteal muscle and the serum injected. On the withdrawal of the needle the point of injection was carefully wiped with absorbent cotton. This accomplished, the treatment, as far as the patient was concerned, was over, and Dr. Friedmann was ready for the next applicant for treatment.

Twenty-eight patients suffering from various forms of tuberculosis were treated at this clinic, including pulmonary, skin, glandular and kidney tuberculosis. In all of the glandular and skin cases, Dr. Friedmann invariably injected his serum intramuscularly as well as intravenously, providing that these patients had no pulmonary involvement.

Dr. Friedmann, through an interpreter, called our attention to the case of a boy, 2 years of age, suffering from the glandular (cervical) and skin forms of the disease, as being extremely rare at that age.

Another interesting case was that of a young man of about 35 years of age with a well-defined case of lupus of the face, presenting a well-defined line of demarkation and marked scarlet color. This man received the usual one-half of one centimeter of the serum, Dr. Friedmann predicting that the patient would be relieved, within ten days, of the annoying tension of the facial muscles — an accompanying symptom of this type of tuberculosis — and that this feeling of tenseness would disappear and the active process in the lupus regress.

It should be mentioned that, previous to treatment, each of the patients had been subjected to a rigid examination, followed by a von Pirquet test.

At the conclusion of the clinic the physician in charge of the clinic presented me to Dr. Friedmann, mentioning, at my request, that I had traveled a long distance to see his work and, if possible, secure some of his serum. Dr. Friedmann greeted me with great cordiality and we exchanged a few words in French, his English vocabulary not being sufficient to allow him to carry on a conversation in that language. Understanding that I had taken a patient to New York to be treated by him, he tried to explain to me that he did not treat private patients. I assured him that my patient was a thousand miles away from New York.

At this time I also had the pleasure of meeting Dr. Arthur M. Stimson of Washington, D. C., one of the government physicians who have charge of all cases treated by Dr. Friedmann in New York hospitals. On inquiry, Dr. Stimson stated that it would be at least a month or two before the government officials would be ready to make public the results of their clinical and bacteriological observations of the Friedmann method of treating tuberculosis.

Those of you who came here with the expectation of hearing an ultra-scientific paper will be sadly disappointed, as I was unable to secure

sufficient clinical data to form a definite idea of Friedmann's work and of his achievements so far. The extreme uncertainty of the situation is responsible for the reluctance displayed by a large number of physicians in discussing the Friedmann treatment.

TETANUS *

CLINICAL CASE REPORT

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A reply from the State Board of Health relative to the prevalence of tetanus in the state of Michigan, and the frequency of recovery, gives the information that in 1910 there were reported forty-six cases, all of which were fatal. In 1911, there were twenty-four cases and twenty-four deaths, while in 1912, there were reported fifteen cases and fourteen deaths. So the reports of our State Board of Health show but one recovery from tetanus during the three years next preceding this year of 1913. I have been informed that one case of recovery occurred in the practice of a friend of mine in a nearby city, during the past year, but a letter of inquiry concerning this has brought no reply, and I am unable to make a report on that case at this time.

In the *New York Medical Journal* of April 5, last, page 715, Dr. Lewis J. Friedman of New York City reports one case successfully treated with antitetanic serum; 136,500 units being administered, assisted by a single dose of 60 grains of chlorotone per rectum, late in the period.

Most of our authorities mention antitetanic serum as of value when used as a prophylactic measure, but state that very little may be hoped for by way of cure, after the convulsions have become well developed.

Bearing all this in mind, I am prompted to report three cases which have occurred in my practice, or within my immediate observation.

CASE REPORTS

CASE 1.—Mr. H. E. W., a student in the University of Michigan, doing research work in bacteriology, and my room-mate during my college days, accidentally inoculated himself with pure culture of tetanus, and in about two weeks, developed a mild case. He had no general convulsions, but rigidity of the masseters was troublesome for about four weeks. He was at no time incapacitated, and recovered completely, no treatment being instituted.

CASE 2.—Mr. Wm. S., drayman, while hauling shingles, stepped on a shingle with a nail which perforated the sole of his shoe, and penetrated the ball of his foot. The wound was promptly enlarged freely, and cauterized with pure phenol. Patient complained of pain in the anterior tibial muscles, beginning on the third day. The fifth day the neck was painful and the jaws stiff. This case occurred in 1901, and no serum was employed in the treatment. The usual line of sedatives, in large and increasing doses, were used, but the patient's condition grew steadily worse, general convulsions appeared, and grew more violent. Finally chloroform was necessary to relieve the terrible suffering, which increased with marked rapidity, until death occurred from suffocation in one of these violent convulsions, which were beyond my ability to describe. Dissolution occurred on the fifth day after the beginning of the attack.

CASE 3.—Miss F. L., aged 12 years. June 25, 1912, stepped, while barefooted, on the teeth of an upturned garden rake, two of the teeth penetrating the sole of her right foot. Cauterization was recommended, but neglected, and the wounds healed quickly. The injury was received on Tuesday evening, and on Saturday evening of the same week, she spent an uncomfortable night, being restless and complaining of a general sense of ill feeling, with no definite location of, nor reason for the condition. The following afternoon I was called, and the patient complained of a sore throat. On examination, I was unable to ascertain any reason for her complaining thus, but I noticed that on asking her to open her mouth, she did it with difficulty, and when a tongue depressor was applied, it seemed to increase her inconvenience. The following morning, Monday, the mother called me early, saying the daughter was much worse, and would I come early. On calling, I found the tetanic symptoms very pronounced, and at once laid plans for a hard siege. I secured some antitetanic serum and administered it at once—3,000 units being given at this time—and an order made for larger quantities. Rigidity and convulsions increased rapidly, following the typical course, until on the fourth day, the convulsions were occurring at the rate of from fifty to sixty per hour, and the rigidity was never relaxed. Serum was being given hypodermically twice daily in doses of 5,000 or 3,000 units as we were able to obtain it.

On the tenth day one dram of 25 per cent. magnesium sulphate solution was injected hypodermically. In about an hour after this injection the nurse called me saying there was a marked change in the condition of the patient. She was more relaxed than she had been for days, was perspiring some, and her convulsions were fewer. The following day the dose of magnesium sulphate was repeated, no intermission being

*Read before the Scientific Meeting of the Calhoun County Medical Society at Battle Creek, Tuesday, May 6, 1913.

made in the administration of antitetanic serum, although it was, on the following day, reduced to a single dose, whereas it had been administered twice daily, when serum was obtainable.

From the second injection of magnesium sulphate, the convulsions decreased markedly and rapidly, and two days later, a third injection of this was administered, this being the last. The patient suffered with a severe urticaria resulting from the serum injections, and these too, were soon discontinued, the condition of the patient being so much improved their discontinuance was deemed safe. The case was discharged, well, on the twenty-sixth day from the beginning of the attack, having been, during the attack, perfectly rigid for a period of twelve days, during which time she might have been carried by her heels and head, and having suffered more than ten thousand convulsions.

Altogether, there were used in her case, 68,500 units of serum, and three one-dram injections of magnesium sulphate, the serum having been administered in nineteen injections—the serum supplied by Parke, Davis & Co., being used for each administration. On three or four occasions it was necessary to resort to morphin to relieve the suffering, and chloroform was used very freely at the time of each convulsion for several days.

The child is living at this writing, and apparently is in perfect health.

CONCLUSIONS

From these cases I am led to draw the following conclusions:

1. The first case recovered because the infection was so very mild, and wholly without treatment. Cases occasionally follow such a course.

2. The second case died after the application of every curative process known at that time, and proves the inefficiency of former lines of treatment.

3. This third case demonstrates that we should consider antitetanic serum in a curative capacity, and no longer as a prophylactic measure alone. It should be given in large and frequent doses, and if necessary, fortified by a nerve depressant, such as magnesium sulphate subcutaneously.

Legislation

SENATE BILL 489
File No. 530

Introduced by Senator Kelley March 31, 1913, and referred to the Committee on Public Health.

April 10, ordered printed for the use of the Committee.

A BILL

To amend sections 3, 7, 8 and 9 of Act No. 237 of the Public Acts of 1899, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," as amended by Act No. 191 of the Public Acts of 1903, Acts Nos. 56, 161 and 207 of the Public Acts of 1905, and Acts Nos. 157 and 164 of the Public Acts of 1907.

The People of the State of Michigan enact:

SECTION 1. Sections 3, 7, 8 and 9 of Act No. 237 of the Public Acts of 1899, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," as amended by Act No. 191 of the Public Acts of 1903, Acts Nos. 56, 161 and 207 of the Public Acts of 1905, and Acts Nos. 157 and 164 of the Public Acts of 1907, are hereby amended to read as follows:

SEC. 3. On and after the date of the passage of this act, all men and women [who are not already legally registered under Act No. 237 of the Public Acts of 1899, and acts amendatory thereto, and] who wish to begin the practice of medicine, * * * surgery [and midwifery] in any of its branches in this state, shall make application to the board of registration in medicine, to be registered and for a certificate of registration. This registration and certificate shall be granted to such applicants as shall [furnish] satisfactory proofs of being [at least] twenty-one years of age, and of good moral [and professional] character, but only upon compliance with * * * the following conditions contained in [one or either of] subdivisions one and two * * * of this section:

First. The applicant shall be registered and given a certificate of registration if he [or she] shall satisfactorily pass an examination under the immediate authority and direction of the board upon the following subjects: [Anatomy, histology and embryology, physiology,

chemistry and toxicology, bacteriology, pathology, diagnosis, hygiene and public health, medical jurisprudence, diseases of the eye, ear, nose and throat, obstetrics, gynecology and surgery, and such additional subjects made necessary by advances in medical education as the board may designate,] said examination to be conducted as follows:

(a) [The examination may be taken as a whole in all of the subjects as aforesaid, and shall be designated as the primary-final examination, or said examination may be divided into a primary examination upon the subjects of anatomy, histology and embryology, physiology, chemistry and toxicology, and bacteriology, and a final examination upon the remaining subjects as aforesaid, not included in the primary examination];

(b) [The applicant shall file with the secretary of the board, at least one week prior to an examination, an approved application, through a blank furnished by the board, covering the detail of his or her personal history, and preliminary and medical education, and such other evidence of qualification as the board may require];

(c) [The board may make such rules and regulations governing the conduct of the examinations as it shall deem necessary, and wilful violation of such rules and regulations shall subject the applicant to the loss of the examination and fee];

(d) [The examination shall be made as practical as possible in order to test the applicant's qualifications as a practitioner of medicine, the method of which shall be in accordance with the board's best judgment, and may be a written, clinical, laboratory or oral examination, or a combination of one or more of the above methods];

(e) An average percentage of at least seventy-five per cent. of correct answers on all the subjects listed under this section, and of not less than fifty per cent. on each subject, shall be required of every applicant: Provided, That in the case of a qualified applicant who has been in reputable [and legal] practice at least five years, at the discretion of the board, this requirement of minimum percentage may be modified by the board to meet the necessities of the [individual] case. [An accepted applicant for the primary-final examination, or for the final examination, as noted in subdivision one (a) of this section, shall have a diploma from a legally incorporated, regularly established and recognized college of medicine within the states, territories, districts and provinces of the United States, or within any foreign country, having as a minimum requirement a four years' course of eight months in each calendar year: Provided, That such applicant shall have, prior to the beginning of his or her course in medicine, or registration or matriculation in a recognized medical college, as a minimum requirement, a diploma from a recognized and reputable high school, academy, college or university, having a classical course, or an equivalent credential], or shall pass an examination equivalent at least to the minimum standard of preliminary education adopted and published by the board before [a board of preliminary] examiners appointed by and in accordance with the regulations of aforesaid board, and at such time and place as the board may designate. [The applicant shall pay to such board of preliminary examiners a fee of five dollars prior to the examination]: Provided, A student entering a college in Michigan, having a preliminary examination of a standard approved by the board of registration in medicine, shall not be required to take this examination: Provided, That this requirement of preliminary education shall not apply to those students who [on the fourteenth day of October, 1903] were regularly registered as students of legally organized and [recognized] medical colleges, [but that the standard of preliminary education shall equal at least the minimum standard in force in this state at the date of aforesaid registration of students]: And provided also, That [a higher] requirement of medical education shall not apply to those graduates of legally organized and [recognized] medical colleges * * * * * * * * * * * who had graduated from such colleges [prior] to the date of the passage of [Act No. 191 of the Public Acts of 1903,] but that the standard of medical education shall equal [at least the minimum standard in force in this state at the date of graduation]. * * * * * * * * * * * * * * * * * * [Students of medicine in regular attendance at a recognized medical college and endorsed by said board as having fulfilled the legal requirements of the state for entrance to, or matriculation in, recognized medical colleges, and who have completed, in accordance with the board's adopted minimum standard of medical education, in such recognized medical college, through attendance and examination, and not prior to the termination of the second year in such institution, among others the subjects of anatomy, histology and embryology, physiology, chemistry and toxicology, and bacteriology, shall have the right to a primary examination, as recorded under subdivision one (a) of this section, upon prescribed subjects, said examination to be held at such times and places as may be determined by the board,

and to receive from the board a certificate showing the credits received in the several subjects upon which an examination shall have been had as aforesaid, and such credits obtained shall, at the election of the student, be included in and form a part of the examination heretofore called the final examination under subdivision one (a) of this section: Provided, That subsequent to graduation from a recognized medical college, in said final examination for a certificate of registration the applicant shall, if presenting said credits to the board at the time of his or her application for examination, be examined only in those remaining subjects prescribed under subdivision first of this section and which have not been listed as subjects of aforesaid primary examination. The applicant shall pay to the board a fee of twenty-five dollars prior to the examination, divided as follows: Ten dollars for the primary examination, and fifteen dollars for the final examination. If such examinations are taken together, or as a whole, the fee shall be twenty-five dollars for such primary-final examination. No additional fee for registration shall be charged to those who successfully pass the examinations. The board shall, in the recognition of medical colleges, in its discretion, list such colleges in three or more classes or groups: Group I including those colleges which fulfill the advanced requirements of this act and which maintain the board's standards of preliminary and medical education; group II including those colleges which have fulfilled the standard of medical education demanded by this state at the date of the diploma; and group III including those colleges whose courses are recognized only for advanced standing in recognized colleges listed under Group I: Provided, That a diploma issued by a medical college listed by the board in one or more of the groups or classes as aforesaid, shall be recognized as a qualification under this act, in the event only of its representing the actual standards of preliminary and medical education within the provisions of this act]. The board of registration in medicine shall, from time to time adopt * * * * * * minimum standards of [preliminary and] medical education, and no [high school, academy, college, university or] medical college, [or other institution or board], shall be approved and designated [or its diploma or certificate be recognized] by said board under subdivision one of section 3 [of this act], unless in the judgment of the board, it conforms with such standard; * * * * * * * * * *

Second. [The applicant may, at the discretion of the board, be registered and given a certificate of registration if he or she shall present satisfactory proof of the possession of a certificate of registration or license which has been issued to said applicant within the states, territories, districts or provinces of the United States, or within any foreign country, where the requirements for the registration of said applicant at the date of his or her license shall be deemed by said board of registration in medicine to be equivalent to those of this act.] The fee for registration from applicants of this class shall be fifty dollars, [and for the endorsement of a certificate to another state five dollars];

Third. [The board is authorized to issue a license or certificate of registration to any person who desires to practice a system of treatment of human ailments or diseases, and who does not in such treatment use drugs or medicines, internally or externally, or who does not practice surgery or midwifery, under the provisions of this act: Provided, That the applicant for such license or certificate of registration shall have an accredited diploma from a high school, academy, college or university, or an equivalent credential, or shall pass an examination before the board of preliminary examiners, such examination to be equivalent to a recognized high school diploma, as provided in subdivision one of this section, and shall pass an examination before the board upon the following subjects: Anatomy, histology, and embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health. This examination shall be concurrent with and equivalent to the examination provided for practitioners of medicine under section 3, subdivision one, of this act, and shall be in harmony with the provisions of this section and subdivision covering such examination in the subjects as above specified: Provided, however, That such examination shall be a continuous one and not subject to a division into a primary and a final examination. The fee for such examination shall be fifteen dollars. A practitioner under this subdivision shall not be permitted to use in any form the title of "doctor" or "professor" or any of their abbreviations, or any other sign or appellation to his or her name which would in any way designate him or her as a physician or surgeon qualified under the provisions of section 3, subdivisions one and two of this act, or in violation of the provisions of this act. All persons granted a certificate of registration or license under the provisions of this subdivision three, shall also conform to the provisions of Act No. 237 of the Public Acts of 1899, and acts amendatory thereto, except as provided in

this subdivision; "Provided, That all practitioners described in section 3, part 3, who have been granted a diploma by a college incorporated for the purpose of teaching their method of treatment and who file with the State Board of Registration in Medicine, prior to October 1, 1913, an affidavit stating that they have practiced in the State of Michigan for a period of two years prior to September 1, 1913, shall be registered and authorized to practice without examination under the provisions of section 3, part 3, of this act. A fee of five dollars ($5.00) must accompany each application for registration under this provision."

Fourth. If any person shall unlawfully obtain and procure himself [or herself] to be registered under this section, whether by false and untrue statements contained in his application to the board of registration of medicine, or by presenting to said board a false or untrue diploma, [certificate] or license, or one fraudulently obtained, he shall be deemed guilty of a felony, and upon conviction thereof shall be punished by a fine of not less than three hundred dollars nor more than five hundred dollars, or [by imprisonment] at hard labor for not less than one year nor more than three years, or both, at the discretion of the court, and shall forfeit all rights and privileges obtained or conferred upon him by virtue of such registration; * * * * * * *

Fifth. Any person who shall swear falsely in any affidavit or oral testimony made or given by virtue of the provisions of this act, or the regulations of the board of registration of medicine, shall be deemed guilty of perjury, and, upon conviction thereof, shall be subject to all the pains and penalties of perjury;

Sixth. The board of registration of medicine [may] refuse to issue or continue a certificate of registration [or license] provided for in this section, to any person guilty of grossly unprofessional and dishonest conduct. The words "unprofessional and dishonest conduct," as used in this act, are hereby declared to mean:

(a) The procuring, aiding or abetting in procuring a criminal abortion;

(b) The obtaining of any fee on the assurance that an incurable disease can be permanently cured;

(c) The wilfully betraying of a professional secret;

(d) All advertising of medical business in which grossly improbable statements are made, or where specific mention is made in such advertisements of venereal diseases or diseases of the genito-urinary organs;

(e) Having professional connection with, or lending one's name to an illegal practitioner of medicine; or having professional connection [with any person or any firm or corporation who advertises contrary to the provisions of this section, or] with any person who has been convicted in a court of competent jurisdiction under the provisions of this section;

(f) All advertising, of any nature or kind, of any medicine, or of any means for the regulation or re-establishment of the menses;

(g) All advertising of any matter of an obscene or offensive nature derogatory to good morals [or contrary to Act No. 62 of the Public Acts of 1911;]

(h) Employing [or being employed by] any capper, solicitor or drummer for the purpose of securing patients; or subsidizing any hotel or boarding-house with a like purpose, or paying, or [offering] to any person, money or any other thing of value with a like purpose, [or advertising to do so in any form whatsoever; or the division of fees in a consultation or a reference of a patient to a specialist, when no actual professional service is rendered by the physician referring the case, without the knowledge of the patient or the person concerned in the payment thereof;]

(i) Being guilty of offenses involving moral turpitude, habitual intemperance, or being habitually addicted to the use of morphine, opium, cocaine, or other drugs having a similar effect; [or of prescribing or giving away any substance or compound containing alcohol or drug for other than legal and legitimate therapeutic purposes;]

Seventh. [It shall be a misdemeanor for any person to be guilty of "unprofessional and dishonest conduct" as defined in this act. Any person who has been issued a certificate of registration or license under this act, and who shall be charged with the commission of such misdemeanor, shall be tried in a court of competent criminal jurisdiction, and upon conviction thereof shall be fined for each offense not to exceed two hundred and fifty dollars, or shall be imprisoned in the county jail not to exceed three months, or may be both fined and imprisoned, in the discretion of the court. The creation of such misdemeanor by this act shall not be construed to supersede any existing remedy or punishment, whether civil or criminal, for any act embraced within the provisions of this act, but shall be construed to be in addition thereto.

The board of registration in medicine may, upon the filing with it

of a duly certified copy of a final conviction obtained in accordance with the provisions of this act, revoke or suspend for a limited period, not less than six months, the certificate or license of the person so convicted. The said board of registration in medicine may also revoke any certificate of registration or license of any person guilty of a criminal offense created by or embraced within the provisions of this act, or within the provisions of any state, provincial, territorial or federal act in the United States or in foreign countries, when such criminal offense or such fraud or perjury shall have been legally established in a court of competent jurisdiction. Said board may also revoke any certificate of registration or license heretofore or hereafter granted upon mistake of material fact or by reason of fraudulent misrepresentation of fact by such applicant. Any person charged with a violation of the provisions of this subdivision seven of section 3 shall have a fair hearing before the board, upon sufficient notice of such hearing: Provided, That this section shall not apply to such forms of contract practice as are from time to time endorsed by this board.]

SEC. 7. Any person who shall practice medicine or surgery in this state, [or who shall advertise in any form or hold himself or herself out to the public as being able to treat, cure or alleviate human ailments or diseases, and] who is not the lawful possessor of a certificate of registration [or license issued under and pursuant to Act No. 237 of the Public Acts of 1899, or acts amendatory thereto, or without first complying with the provisions of this act, (except as heretofore provided in section 3 of this act), shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not more than two hundred dollars, or by imprisonment in the county jail for a period of not more than six months, or by both such fine and imprisonment, in the discretion of the court, for each offense. It shall be the duty of the prosecuting attorneys of the counties of this state to prosecute violations of the provisions of this act.]

SEC. 8. This act shall not apply to the commissioned surgeons of the United States army, navy or marine hospital service, in actual performance of their official duties, nor to regularly licensed physicians and surgeons from out of this state, in actual consultation with physicians [and surgeons] of this state, nor to dentists in the legitimate practice of their profession, nor to temporary assistance in cases of emergency, nor to the domestic administration of family [remedies], nor [to osteopaths practicing under the provisions of Act No. 162 of the Public Acts of 1903, nor to optometrists registered under Act No. 71 of the Public Acts of 1909, nor to chiropodists who confine their practice to chiropody and who do not use title of "doctor" or "professor" or any of their abbreviations, or any other prefix or affix in a medical sense to their names, nor to persons who confine their ministrations to the sick or afflicted to prayer and without the use of material remedies.]

SEC. 9. [Any person who shall append the letters "M. D." or "M. B." or other letters in a medical sense, or shall prefix the title "doctor" or its abbreviation, or any sign or appellation in a medical sense, to his or her name, it shall be prima facie evidence of practicing medicine within the meaning of this act. In this act, unless otherwise provided, the term "practice of medicine" shall mean the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect or complaint, whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever.]

HOUSE ENROLLED ACT NO. 88

An act to provide for the prevention of blindness in the newly born by fixing the duty of the State Board of Health in regard thereto, and compelling doctors, nurses and midwives to treat the eyes of infants in a certain manner, and to provide a penalty for failure so to do, and to repeal act No. 43 of the Public Acts of 1895.

The People of the State of Michigan enact:

Section 1. It shall be the duty of the State Board of Health to officially name and approve a prophylaxis, to be used in treating the eyes of newly born infants, and it shall be the duty of the board to publish instructions for using the same.

Sec. 2. It shall be the duty of any physician, nurse or midwife who shall assist and be in charge at the birth of any infant or have care of the same after birth, to treat the eyes of the infant with a prophylaxis approved by the State Board of Health: and such treatment shall be given as soon as practicable after the birth of the infant and always within one hour: and if any redness, swelling, inflammation or gathering of pus shall appear in the eyes of such infant or on the lids or about the eyes, within two weeks after birth, then any nurse, midwife or other person having care of the infant shall report the same to some competent practicing physician within six hours of its discovery.

Sec. 3. Any failure to comply with the provisions of

section 2 of this act shall be punishable by a fine not to exceed $100 or imprisonment in the county jail not to exceed six months, or both such fine and imprisonment in the discretion of the court.

Sec. 4. Act No. 43 of the Public Acts of 1895, approved March 29, 1895, the same being compiler's sections Nos. 4475 and 4476 of the Compiled Laws of 1897, is hereby repealed.

HOUSE ENROLLED ACT NO. 19

Introduced by Mr. Odell.

Bill No. 84, File No. 75.

An act to authorize the sterilization of mentally defective persons maintained wholly or in part by public expense in public institutions in this state, and to provide a penalty for the unauthorized use of the operations provided for the people of the State of Michigan enact:

Section 1. Authority is given to the management of any institution maintained wholly or in part by public expense, in whose custody may be held individuals who have been by a court of competent jurisdiction adjudged to be and who are mentally defective or insane, to render incapable of procreation, by vasectomy or salpingectomy or by the improvement of said surgical operation which is least dangerous to life and will best accomplish the purpose, any person who is mentally defective or insane.

Sec. 2. The boards of the aforesaid institutions and the physicians or surgeons in charge of each of said institutions, shall for each of their respective institutions constitute a board, the duty of which shall be to examine such inmates of said institutions as are eported to them by the warden or medical superintendent to be persons by whom procreation would be inadvisable. Such board shall receive the report of insanity experts hereinafter mentioned, examine the physical and mental condition of such persons and their records and family history so far as the same can be ascertained, and if in the judgment of a majority of said board, procreation by any such person would produce children with an inherited tendency to insanity, feeble-mindedness, idiocy or imbecility, and there is no probability that the condition of such person so examined will improve to such extent as to render procreation by any such person advisable, or if the physical or mental condition of any such person will be substantially improved thereby, then said board shall direct a competent physician or surgeon with such other assistants as may be necessary, to perform the operation of vasectomy or salpingectomy or any other operation or improvement on vasectomy or salpingectomy recognized by the medical profession, as the case may be, on such person. Such operation shall be performed in a safe and humane manner, and the board making such examination and the institution physician or surgeon shall receive no extra compensation therefore: Provided, That at least thirty days' notice shall be given to the parents or guardian of such person before the performing of such operation; said notice to specify the purpose, time and place of such examination: Provided further, That when said parents or guardian object to the performance of such operation, then the question of the sanity of such person shall be referred to the probate court of the county in which the institution is located where the question of the sanity and the necessity for this operation shall be determined as in other insane cases before such courts.

Sec. 3. In case an institution has no physican at its head authority is given to the board of managers to cause such operation to be performed, to hire expert physicians to examine and report on the condition of the subject, and to perform the operation with such other assistants as may be necessary: Provided, Before said operation is ordered there shall be secured from two physicians having qualifications prescribed by law for examiners in insanity, a written statement or report that such operation is desirable in the interests of the patient or the good of the community: And Provided further, That these physicians shall be allowed for their services the compensation fixed by statutes for the examination and certification of an insane person. The several sums necessary to carry out the provisions of this act shall be certified to be correct by the respective boards and shall be paid out of the general fund of the state on the warrant of the auditor-general.

Sec. 4. In relation to each individual person sterilized under the provisions of this act, the board of control of the institution in which said person is an inmate shall file with the State Board of Public Health of Michigan, a written record setting forth the name, age, sex, nationality, type or class of mental defectiveness of said person, the nature of the operation performed, the subsequent mental and physical condition as affected by said operation: Provided, That said records shall not be for public inspection, but may be open to inspection of the members of the board of control of the aforesaid institutions and of the members of the immediate family of the person operated on, or any physician or surgeon designated by them.

Sec. 5. Except as authorized by this act, every person who shall perform, encourage, assist in or otherwise promote the performance of either of the operations described in Section 1 of this act, for the purpose of destroying the power to procreate the human species, or any persons who shall knowingly permit either of such operations to be performed on such person, unless the same shall be a medical neccssity, shall be guilty of a felony and on conviction thereof shall be fined not more than $1,000 or imprisoned in the state prison not more than five years or both in the discretion of the court before whom the said person or persons were so convicted.

HOUSE ENROLLED ACT NO. 59

An act providing for the supervision and control by the State Board of Health over waterworks systems and sewage disposal systems, and providing for the appointment, duties, salary and expenses of a state sanitary engineer, and providing penaltics and defining liabilities for violations of this act; and to repeal act No. 28 of the Public Acts of 1909.

The People of the State of Michigan enact:

Section 1. The State Board of Health is hereby given supervisory and visitorial power and control as limited in this act over all corporations both municipal and private, partnerships and individuals engaged in furnishing water to the public for household or drinking purposes, and over the plants and systems owned or operated by such municipal or private corporations, partnerships or individuals. The word "corporations" as hereinafter used in this act shall be taken to mean and include municipal corporations as well as private corporations.

Sec. 2. The State Board of Health, its agents and representatives, shall have the power and authority to enter on, at all reasonable times, the pumping plants, filtering plants, reservoirs, standpipes, cribs and other property of such corporations, partnerships or individuals, for the purpose of inspecting the same and carrying out the authority vested in them by this act.

Sec. 3. The State Board of Health shall have authority to make and enforce such rules and regulations as it may deem necessary, governing and providing a method of conducting and operating the entire or any part of the system of waterworks, including the filtration plants, owned or operated by such corporations, partnerships or individuals, and may make and enforce penalties for the non-compliance with such rules and regulations; and said board shall, in addition to the other powers herein vested in it, whenever it shall deem it necessary for the protection of health, have authority to direct such corporations, partnerships or individuals operating waterworks systems to cleanse any portion of such systems as it may deem necessary, and to operate the same in such manner as to furnish pure and wholesome water and to enforce such directions by rule or regulations.

Sec. 4. Whenever the mayor of a city, president of a village, supervisor of a township, health officer or representative of the State Board of Health has reason to believe that the water furnished by any corporation, partnership or individual is contaminated, then it shall be the duty of the State Board of Health, on the request of such officer, to investigate the same and to determine by laboratory analysis the condition of said water and the certificate of the state bacteriologist showing result of such analysis shall be prima facie evidence of the matters stated in such certificate and also as to the source of the water and the time and place of taking and of all matters that may be stated in said certificate.

Sec. 5. The expenses of the investigation and analysis made by the State Board of Health shall be borne by the locality and shall be paid for at the rate of $5 per day and necessary traveling expenses while making such investigation and analysis and shall constitute a charge against the city, village or township asking for such investigation; the said per diem to be covered into the state treasury to the credit of the State Board of Health Laboratory Fund in addition to the amount already appropriated.

Sec. 6. It shall be the duty of the mayor of each city, the president of each village and of all private corporations, partnerships or individuals now or hereafter operating waterworks systems in this state, to file with the State Board of Health a true and correct copy of the plans and specifications of the entire system owned or operated by such corporation, partnership or individual, including such filtration or other purification plant as may be operated by them in connection therewith, and also plans and specifications of all alterations, additions or improvements to such systems which may be made from time to time. The plans and specifications herein referred to shall, in addition to all other things, show all the sources through or from which water is or may be at any time pumped or otherwise permitted or caused to enter into such system. Such plans and specifications shall be certified by the mayor and city engineer of city corporations by the president and engineer if one is employed for village corporations and by such proper officer and the engineer employed by a private corporation for private corporations, and by some individual member of a partnership, or by the individual owner in case of waterworks owned and operated by partnerships or individuals, including the engineer employed, if any. If within sixty days after this act shall take effect or within sixty days after any corporation, partnership or individual shall commence to operate, or within sixty days after any alterations, additions or improvements shall be made by such corporation, partnership or individual, any municipal officer or other person whose duty it is to file the same under the provisions of this act, shall wilfully fail to file the same under the provisions of this act, shall wilfully fail to file a copy of the plans and specifications as provided herein, or shall knowingly file false or incomplete copies of such plans and specifications, such officer or person shall be deemed guilty of a misdemeanor and shall be subject to a fine of not less than $25 and not more than $100, or to imprisonment in the county jail not more than thirty days, or to both such fine and imprisonment, and in addition thereto shall be subject to a penalty of $25 for each and every day such person or officer shall fail or neglect to file such plans and specifications, which penalty may be collected in any court of competent jurisdiction on the complaint of any member of the State Board of Health, and it shall be the duty of the attorney-general to prosecute such complaint, and any penalties recovered shall be deposited in the general fund of the state.

Sec. 7. The words "plans and specifications" as used in this act shall be construed to mean a true description or representation of the entire system operated by such corporation, partnership or individual as the same shall be actually in use at the time of filing the same, and also a full and fair statement of how the same is operated: Provided, That any corporation, partnership or individual that has already filed with the State Board of Health such plans and specifications as are required by Section 6 of this act, shall not be required to file such plans and specifications.

Sec. 8. In case of corporations, partnerships or individuals operating filtration plants in which there are beds or other appliances to be cleansed, it shall be the duty of such corporations, partnerships or individuals to file with the State Board of Health an annual report under oath on or before the first day of January in each year, showing the dates on which and the number of times such beds or appliances were cleansed during the preceding year. Such report shall be sworn to by any municipal officer or person acquainted with the facts and employed by such corporation, partnership or individual at the time of making said report. In the case of a municipal corporation, it shall be the duty of the clerk thereof to prepare and forward such report. Any person making a false statement in such annual report shall be deemed guilty of and subject to the penalty of perjury.

Sec. 9. Any corporation other than municipal, any partnership, company or individual or any officer of any municipal corporation having the duty imposed on him by this act, who shall violate any provision of this act where no other penalty is provided therein, shall be guilty of a misdemeanor and shall be punished therefor as provided by law.

Sec. 10. It shall be the duty of the State Board of Health on receipt of the plans and specifications of such waterworks systems to inspect the same with reference to their effect on the public health, and if such board on such inspection finds that the public water-supply of any such city or village is impure and dangerous to individuals or to the public generally, the said board on its order may require the corporation, partnership or individual owning and operating the same to make such alterations in such waterworks systems as may be required or advisable in the opinion of said board in order that the water-supply may be healthful and free of pollution. Such recommendations or orders of the State Board of Health shall be served in writing on such corporations, partnerships or individuals, and it shall thereon be the duty of such corporations, partnerships or individuals to comply with such recommendations or orders.

Sec. 11. The State Board of Health shall have the same power of visitation, inspection, direction and control over the sewage disposal systems of the cities and villages of this state as is herein given with respect to waterworks systems. The mayor of each city and the president of each village shall file with the secretary of the State Board of Health, on or before the first day of January, 1914, a true and correct description of the entire sewage system owned by the municipality. It shall be the duty of the State Board of Health on receipt of such plans and specifications to inspect the same with reference to their effect on the public health, and if such board on such inspection finds that such sewage systems or any parts thereof are dangerous to individuals or to the public health generally, the said board on its order may require such alterations in such systems as may be required or advisable in the opinion of such board: Provided, That nothing herein contained shall be construed to grant any power to prevent any municipality now disposing of its sewage into any river from continuing so to do. Such recommendations or orders shall be served in writing on the clerk of the city or village, and thereon it shall be the duty of such city or village to make such alterations, changes or additions to its sewage system as shall have been recommended or ordered by said board. Such orders may be reviewed or enforced by any court of chancery or other court having jurisdiction.

Sec. 12. The State Board of Health is hereby authorized and empowered to employ a sanitary engineer who shall be known by the title of State Sanitary Engineer, who shall give his full time under the direction of the State Board of Health to the visitation, inspection and investigation of the waterworks systems, sewage disposal systems, garbage disposal systems in the cities and villages of this state, and to such other matters as the State Board of Health may direct. He shall be paid a salary of a sum not to exceed $3,000 per annum, and his expenses for traveling and clerk hire under the direction of the State Board of Health, to be paid out of the general fund of the state, the same to be audited as provided by law on the approval of the secretary of the State Board of Health. He shall at all times be subject to the orders of and removal by the State Board of Health.

Sec. 13. Act No. 28 of the Public Acts of 1909 is hereby repealed.

AMENDMENTS TO MEDICAL ACT

B. D. HARISON, M.D.
DETROIT

These amendments, which were passed by the legislature this session and signed by the Governor, May 4 last, are to be found on pages 323-327 of this edition of THE JOURNAL. They require careful study and analysis, and comparison with other state medical acts, to demonstrate their originality and effectiveness, not only as applied to this year, but also to the years to come.

These amendments are almost an exact reproduction, covering the sections involved, of a report made to the Council on Medical Education, American Medical Association, at its meetings at Chicago, in 1908, by the committee on "The Essentials of a Model Medical Practice Act," the chairman of which committee, and who edited the report, was the secretary of the Michigan State Board of Registration in Medicine. At that time, subdivision third, section 3, of the present amendments, was not a factor in the state regulation of medical practice, from the fact that the various cults had not developed to the extent that they were material to a medical practice act. The only criticism made in the discussion which followed the report, was that the conditions involved in the report above referred to, were impracticable, from the standpoint that no state legislature would enact a law covering such conditions. As above stated, a critical analysis of the amendments passed will demonstrate some of the following points: clearness and exactness of legal requirements, flexibility and the authority of the board to meet conditions of medical education as they arise from time to time.

It is only possible in this article to give a brief résumé of the more important amendments to the present medical acts.

Line 4, p. 323, midwifery is added to practice of medicine and surgery. While medicine really covers the whole field of practice, the addition of surgery and midwifery has the effect of making the requirements of the act plainer to the laity. It emphasizes the fact that midwifery is a function of the registered physician and eliminates the so-called midwife from quasi-legal consideration.

Pp. 323-4, lines 15-20, inclusive, the subjects of practice, materia medica and therapeutics have been eliminated from the board's curriculum of required subjects, which will have the effect of bringing the various recognized schools of practice in harmony, to a greater extent, with each other. There is, however, a saving clause, which

gives the board the authority to add additional subjects if necessary.

P. 324, lines 21-27, inclusive, provides for the division of the board's examination into a primary and a final. This division was provided for in a former act.

P. 324, lines 28-40½, inclusive, confers on the board the authority to make such regulations as may be deemed necessary, covering examinations by the board. Also, the method of such examinations is in accordance with the board's best judgment, and provides for a written, clinical, laboratory or oral examination, or a combination of one or more of the above methods.

P. 324, lines 48-54, inclusive, provides for a *minimum requirement,* in both preliminary and medical education. This provision for a *minimum requirement,* in connection with the provisions on p. 325, lines 121-128, inclusive, gives the board authority to raise the standard of both preliminary and medical education, at any time it sees fit, and renders it unnecessary for the board to go to the legislature from session to session, in order to obtain a higher requirement made necessary by advances in medical education. As an illustration of the necessity of this provision, the following is pertinent: The Detroit College of Medicine intends to add a year's preliminary work in the near future. If the board's standard requirement of preliminary education was simply the credential of a high school diploma, then it would be possible and probable that intended practitioners of this state would migrate to colleges without the state, obtain their medical qualifications on a lower standard than that demanded by the Detroit College of Medicine, and would, consequently, be able to return to Michigan and register through the reciprocal endorsement of their licenses obtained from other states through a lower standard, and would also be able to qualify for the board's examination on a similar qualification. The requirement under the medical act of 1907, that the board should not have the authority to raise the standard of preliminary education higher than the standard fixed for admission to the Literary Department of the University of Michigan, has been eliminated from the present act, also the requirement that the raising of the standards of preliminary and medical education should not go into effect until one year after adoption, has been eliminated. The standard for entrance to the Literary Department of the University of Michigan does not harmonize with the standard recognized as necessary for the study of medicine.

P. 325, lines 117-121, inclusive, emphasizes the fact that qualification for license is not a *group* proposition. Every applicant must stand on his own merits.

P. 325, section 1, subdivision second, covers the so-called reciprocity qualifications for admittance to license in this state. The word "reciprocity," however, has been substituted by the better term "endorsement," from the fact that reciprocity conveys the idea, not only to laymen, but also to executives of state boards, that a *group* proposition is involved, or, in other words, that a state entering into a reciprocal agreement with another state must accept its whole licentiate product, regardless of individual quality, also that there are states in the Union whose laws do not provide for interstate endorsement (the proper substitute for the term reciprocity), and allows the board, in the event of, for example, the Medical Department of the University of Michigan desiring a professor, an associate professor, or an instructor from such state, to issue an endorsement of his qualifications without an examination test. It is not only embarrassing to the board, but also to the applicant, to require a teacher to write in an examination with the students whom he, in most instances, has already prepared for such examination.

Section 3, subdivision third, p. 325. This subdivision covers the regulation by the board of the various cults and treatment specialists not authorized in law in this state. It is by far the most far-reaching of any provision of its kind ever passed by any state legislature. It requires a chiropractor, a mechano-therapist, a neuropathist and other cults of like nature, to be subject to the board's regulations covering moral and ethical character, discipline and registration with county clerks, but, in addition, it requires them to have a diploma from a recognized high school (not the equivalent of a diploma) and also provides that they shall pass an examination before the board on the subjects of anatomy, histology and embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health, of an equal grade to that of a practitioner of medicine. It is almost certain that a person qualifying in accordance with this subdivision would of necessity go a little further and qualify as a medical man. It will be noted that all persons granted a certificate of registration or license under the provisions of this subdivision third, shall also conform to all the provisions of the medical act, except in the qualifying clause. The chiropractors, so-called, succeeded in having the original bill as introduced amended as follows:

"Provided, that all practitioners described in "section 3, part 3, who have been granted a "diploma by a college incorporated for the pur- "pose of teaching their method of treatment and "who file with the State Board of Registration "in Medicine, prior to October 1, 1913, an affi- "davit stating that they have practiced in the "State of Michigan for a period of two years "prior to September 1, 1913, shall be registered "and authorized to practice without examination "under the provisions of section 3, part 3, of this "act. A fee of five dollars ($5.00) must accom- "pany each application for registration under "this provision."

From information at hand it is almost impossible to state how many of the members of cults in practice will be able to qualify under this exception. The president of the state chiropractic society states that not more than 80 per cent. of chiropractors practicing in Michigan will be able to qualify, and that only one Michigan chiropractic college has been incorporated covering the required two years. To this two years' requirement must also be added nine months of course, which would in actual practice require a college to have been incorporated some thirty-three months. It is estimated, however, by those who know the facts in connection with cult practice in Michigan, and the method of graduation from cult colleges, that by a proper system of administration, not more than 10 per cent. of the cult practitioners will be able to meet the requirements of this subdivision. Those cult colleges which have in their curriculums required a nine-months' course, and have graduated students with a lesser requirement, will not be able to qualify for registration, and it is a safe proposition to state that a very small percentage of these graduates have fulfilled the curriculum requirements above referred to. There are at least two Michigan supreme court decisions, one federal court decision, and one United States supreme court decision, which state, in effect, that a college, in order to qualify legally as incorporated, must have fulfilled the curriculum requirements as published. Consequently, a college whose curriculum calls for a nine-months' course, and who graduates students, either by correspondence or by a course less than its announced nine-months' course, would necessarily be disqualified as an incorporated college under the provisions of the amended act.

This subdivision not only in a very large measure takes care of the past, but it eliminates in the future every form of treatment specialist who is not properly and legally qualified, and is especially strong from the standpoint of the protection of the public against incompetent practitioners. It must also be noted that all practitioners under this section and subdivision are prohibited from using the title of "Doctor" or "Professor," or any of their abbeviations, or any other sign or appellation to his or her name which would in any way designate him or her as a physician or surgeon.

As the enforcement of the provisions of all state acts lies solely within the authority of the prosecuting attorneys, naturally the future status of unqualified practitioners is to a large extent subject to their sworn duties and activities. It is within the power and duty of every county medical society to demand that the law shall be enforced. The members of each county medical society must have knowledge of violations of the act, and if on reporting the same to prosecuting attorneys no action is taken, then the matter should be taken up with the State Board of Registration in Medicine, who will report the matter to the Governor and the Attorney-General.

Section 3, subdivision sixth, page 326, inclusive, covers very fully what is known as the discipline clause of the act. This subdivision has been considerably strengthened and the additions are indicated by brackets.

Section 7, page 327, has been greatly strengthened by the addition (line 2), "or who shall advertise in any form or hold himself or herself out to the public as being able to treat, cure or alleviate human ailments or diseases." This added proviso is really a repetition of section 9, which defines the practice of medicine.

Section 8, page 327, provides for the usual exemption to physicians and surgeons of the United States army, navy or marine hospital service, to regularly licensed physicians and surgeons from out of the state in actual consultation with physicians and surgeons of this state, to dentists in the legitimate practice of their profession, to temporary assistance in cases of emergency, and to the domestic administration of family remedies. It also exempts osteopaths practicing under the provisions of the osteopathic act, optometrists registered under the provisions of the optometric act, chiropodists who confine their practice to chiropody and who do not use the title of "Doctor" or "Professor," or any of their abbreviations or any other prefix or affix in a medical sense to their names. As physicians do not in nine hundred and ninety-nine cases out of a thousand practice chiropody, and as chiropodists take advantage of this fact and usually affix the title "Doctor" to their names, this provision is a protection to the public.

Section 9, p. 327, covers the definition of the practice of medicine. It is by far, as compared with other state definitions, the most definite, far-reaching and stringent provision that has ever been enacted, in this or in any foreign country.

The Governor, the legislature and the people are to be congratulated on putting on the statute books an act which, in the opinion of the writer, has no equal in the United States. So many persons were concerned in its successful passage that it is very difficult to give praise where praise is due. Special mention, however, may be made of the untiring and successful activities of Senator Kelley, M.D., the introducer of the bill in the senate; Representative Whelan, M.D., and Representative Lee, D.D.S., of the health committees of the senate and house, respectively; Representatives Flowers and Warner, and the acting chairman of the combined committees of the state medical society and the State Board of Registration in Medicine, Bret Nottingham, M.D.

COMMENTS ON THE AMENDMENTS TO THE MEDICAL PRACTICE ACT

BRET NOTTINGHAM, M.D.
LANSING, MICH.

Of all the medical legislation enacted during the session of 1913, the most important act and the one of interest to the greatest number in the profession was the one introduced by Senator Kelly, known as Senate Bill 489, which passed both the House and Senate, and now only awaits the signature of the Governor in order to become a law.

This bill was thoroughly considered at two joint meetings of the Committee on Legislation of the Michigan State Medical Society and of the Michigan State Board of Registration in Medicine and before being introduced met with their unanimous approval.

Previous medical legislation has been directed more toward providing for the administration of the affairs of those practicing legitimate medicine and had for its purpose the raising of the standard of medical education and the medical practice among those, who, strictly speaking, were practitioners of medicine.

The amendments as formulated by your committees have for their purpose the increase in efficiency of medical laws already existing so as to make possible the enforcement of these laws, in so far as they related to those practitioners, or healers, or adjusters, who heretofore have not been under the control of any law, but who in fact have been practicing medicine.

The first important change to be accomplished by these amendments is the elimination from the examination of all medical students of two subjects, viz., materia medica and therapeutics and the practice of medicine. This is another step toward the abolition of sectarianism and also emphasizes more forcibly the fundamental intent of all medical legislation, which is, that regardless of a physician's belief concerning the treatment of disease, the public must be assured that he possesses at least a fundamental knowledge of its cause and effect. In addition, this amendment will do away with any tendency on the part of different sects to claim unfairness or partiality in connection with the examinations of its students for the reason that all applicants will be required to pass examination on precisely the same subjects.

The second important amendment is that governing the practice of the so-called "drugless healers." The section describing this class of healers is so broad that it includes all those now existing in the state of Michigan as well as those who in the future are bound to organize new "pathys." They are described as follows: "Those who desire to practice a system of treatment of human ailments or diseases and who do not in such treatment use drugs or medicines internally or externally, or who do not practice surgery or midwifery." No mention is made anywhere in the Act of Mechanotherapy or Chiropractic or any other system of treatment embraced in this amendment. This class of practitioners in order to legally practice in Michigan must have an equivalent of any accredited high school diploma or be a graduate of an academy, college or university and must pass an examination before the Michigan State Board of Registration in Medicine in the following subjects: Anatomy, histology and embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health. All are forbidden to use in any form the title of "Doctor" or "Professor," or any of their abbreviations.

The one amendment to the amendments as approved by the legislative committee was made necessary by the exigencies of practical politics. It became necessary in order to secure the passage of any part of Senator Kelly's bill to provide for those "drugless healers" who are now established in the state, and we, therefore, attached the following amendment to the bill: "Provided that all practitioners described in Section 3, Part 3 (drugless healers), who have been granted a diploma by a college incorporated for the purpose of teaching their method of treatment and who file with the State Board of Regis-

tration in Medicine, prior to October 1, 1913, an affidavit stating that they have practiced in the state of Michigan for a period of two years prior to September 1, 1913, shall be registered and authorized to practice without examination under the provisions of Section 3, Part 3 of this Act."

It is estimated that this amendment will allow ten to fifteen per cent. of those at present practicing chiropathy in this state to continue their practice. We understand that there are only three incorporated chiropractic colleges in Michigan and the graduates of all other colleges must necessarily cease their activities.

The only possible criticism that I can imagine as being directed against medical legislation for 1913 would concern the above amendment in that it allows a certain percentage of illegal practitioners to legalize themselves and thus practice without interference. But, if we stop to consider that for years this class has been permitted to practice practically unmolested and to graduate from their colleges students in from twenty-four hours to one week it seems apparent that the advantage to be gained by placing them under legal restraint far more than compensates for any concession which may have been made in their behalf. Moreover, previous medical laws have very stringent regulations against unfair advertising and the pursuit of "unprofessional and dishonest conduct" so that their extravagant claims of cures and the miraculous results of their treatment with which they have been in the habit of flooding the public press by means of advertisements must now cease, else their number in active practice will be again considerably reduced. If their practice is so entirely without merit, as is now so generally claimed, then, without publicity, the doom of the entire sect is sealed.

The third amendment is one equally as important as the second in that it places on our statute books a strict and comprehensive definition of the practice of medicine, which is something we have been unable to accomplish either by legislation or litigation. The following is the important portion of this section: "In this act, unless otherwise provided, the term 'practice of medicine' shall mean the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect or complaint, whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever."

It will be seen at a glance that this paragraph covers the remainder of illegal practitioners such as "Indian doctors" and others who have thrived in Michigan because of the inability of prosecutors to definitely fix in the minds of jurors the exact meaning of the term "practice of medicine."

This one section strengthens the medical act in its entirety, and I believe is of as much importance as any previous one that has been passed in connection with any of our medical laws.

The three amendments mentioned above are the principal changes accomplished in the medical legislation of 1913, and I believe provide for all important contingencies that may arise for many years to come. These provisions are so broad that special legislation having to do with any of the basic principles seems unnecessary. However, there are two amendments to our present laws which I would suggest for future consideration.

The first, is the removal of all mention of sects in the act, which would naturally bring about the removal of all sectarianism from the State Board of Registration in Medicine. With the abolition of all examinations in the subjects of materia medica, therapeutics and the practice of medicine from our examination requirements, all necessity for the appointment of any one or two schools on our board is removed, since these subjects constitute the only difference between sects. The fitness of the man should be the prime requisite for his appointment on this board and not his diploma from a school professing belief in a certain system of treatment.

The passage of this act means that the opportunity is now given the members of the profession to clear Michigan of medical fakirs. This task must necessarily involve a great number of prosecutions, and while this class of litigation rightfully belongs to the prosecuting attorneys of the different counties, nevertheless general supervision must be expected to come from the office of the secretary of the Michigan State Board of Registration in Medicine. It is to him that the officers of the county societies look for advice whenever a question of the violation of the medical laws arises in his vicinity. I would, therefore, strongly favor the establishment of a legal department in connection with the secretary of this board and believe that this step would do more good for the medical profession than any other one thing. It is the one thing necessary to make the amendments of 1913 effective.

Too much credit cannot be given the officers of the county medical societies in educating the senators and representatives with whom they came in contact concerning the necessity for the provisions of our medical legislation. The lawmakers are much more attentive to a word from

"the folks at home" than to the arguments of a passing acquaintance in the capital city, and in the conduct of future legislation it is well to remember that we have a cohesive state organization whose effectiveness in moulding legislative sentiment has been conclusively demonstrated.

PUBLIC HEALTH LEGISLATION

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Physicians are, as a rule, too busy to follow, at least in detail, the action of the state legislature, and undoubtedly many are entirely unfamiliar with the bills regarding public health matters passed by our recent legislature. It is therefore in order to review certain measures enacted into law by the legislature just adjourned.

One of the most important bills passed is one which gives the State Board of Health supervision and control of every water works system and sewage disposal system in this state, whether owned by a municipality, corporation, partnership or individual. Heretofore the State Board of Health has not even had visitorial power over water works systems owned by municipalities. The recently enacted law gives the State Board of Health very extensive authority along this line. It also provides for the employment of a state sanitary engineer, at a salary not to exceed three thousand dollars, who shall give his entire time, under the instructions of the State Board of Health, to the consideration of water works systems, sewerage systems, garbage disposal systems, sanitary conditions of public buildings and similar work. This arrangement will make it possible for municipalities to have the consultation and advice of an expert engineer who has no commercial interest to serve. It will, therefore, be unnecessary hereafter for villages and cities in Michigan to employ commercial sanitary engineers to advise them more in the interest of the company which the engineer represents than the municipality which he is supposed to be serving. There was some objection to this measure from certain municipalities and city engineers in Michigan. When the sources of the objections were studied, however, it was perfectly evident that the municipalities rendering the objections needed just such control as this law provides.

Another important measure is one providing that when a board of health has established the fact that certain existing conditions constitute a nuisance and a menace to health, the local board of health may order the persons responsible for the nuisance to abate the same within a reasonable length of time, and if their orders are not complied with, then the local board may have the nuisance abated, and the expenses incurred in so doing charged as tax against the property.

The bill to prevent blindness requires the physician, midwife, or other person attending an obstetrical case to treat the eyes of every newly-born infant with a prophylactic solution approved by the State Board of Health and to record the fact of having made such treatment on the birth certificate.

More authority has been given the departments of health and labor in regard to sanitary conditions of public school buildings.

A commission consisting of the secretary of the Psychopathic Hospital, the secretary of the State Board of Health, the secretary of the State Board of Corrections and Charities and the State Superintendent of Public Instruction has been created, and authorized to make an investigation of the causes, extent and distribution of feeble-mindedness, epilepsy and insanity within the state of Michigan, with special study of the relations borne to these conditions by heredity and by disease. This commission is to serve during the next two years, without compensation, and is authorized to employ such assistants and investigators as it may deem necessary and to report to the next regular session of the legislature with recommendations.

The hotel sanitation bill provides that the State Labor Commissioner, the Dairy and Food Commissioner, Insurance Commissioner and the secretary of the State Board of Health shall constitute a Hotel Sanitation Commission, with authority to make and enforce rules and regulations covering all phases of hotel sanitation and safety. The law specifically provides that all guest rooms and toilet rooms shall be supplied with individual towels; that kitchens and dining rooms shall be thoroughly screened; that adequate fire escapes shall be established and that sanitary conditions shall prevail. This bill was strongly urged by the Traveling Men's associations of this state, and it is largely due to their activity that the bill passed.

The office appropriation of the State Board of Health was increased from nine thousand dollars to fifteen thousand dollars. It is the policy of the department to use practically all of this additional six thousand dollars for educational work: It is planned to discontinue the quarterly bulletin of the office as a regular bulletin, to make the monthly bulletin about the size of the present quarterly bulletin and to place one hundred thousand Michigan homes on the mailing list. This feature of the work will certainly go a great

way toward establishing, in this state, public health sentiment on a much higher level than it now stands.

Several other minor bills, so affecting the health boards as to increase their efficiency, have been established.

The action of the legislature in relation to the State Board of Health and the local health departments indicates the general appreciation of the departments' activity and earnestness in promoting public health measures, and for the generous support which the legislature has given public health work we should all be very grateful.

MEDICAL LEGISLATION

W. H. SAWYER, M.D.
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The legislative session just closed, from the standpoint of the medical profession, has been satisfactory. The laws to which it has given enactment have in the main been progressive and just. It has fulfilled its function and borne its responsibility, guided only by the light it had to mark the right course. Recognizing the intelligent direction of the governor, the recommendations made in his inaugural address have been kept in mind, and the result is a distinct step forward in the conservation of the health of the state. As is usual, there were a few unfair and unreasoning men who cried "Medical Trust," not stopping to consider the facts, or perhaps lacking the ability to weigh evidence. Such men are not constituted to appreciate that there can be such a devotion to a cause as to subordinate self to a common good, and must attribute ulterior motives to the generous acts of others. There will always be a few of these characters, but their influence will lessen as the public, through an increasing understanding, more and more comes to realize the tremendous importance of saving-health measures. The confidence in the leadership of medical men is being established, and their instrumentality in initiation and fulfilment of reforms is being recognized and better received.

The State Board of Registration in Medicine, on the advice of the State Society, through its secretary, introduced a modification of the Medical Practice Act. This bill which amended sections 3, 7, 8 and 9 of Act No. 237, of the Public Acts of 1899, and acts amendatory thereto, provides for some changes in the subjects on which applicants are to be examined and the method of conducting such tests.

Provision is also made for the examination and license of those who treat human ailments without the use of drugs or medicines internally or externally after meeting the requirements of an accredited preliminary credential and having passed an examination in anatomy, histology, embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health.

Chiropractors who have been practicing within the state for two years prior to the passage of this Act are exempted from its provisions. This concession was made necessary by the opposition which developed in the lower house. Osteopathists and optometrists are legalized by the provisions of other laws. Chiropodists and Christian Scientists who do not use the title "Doctor" or "Professor" are not illegalized by this act.

Section 9 reads as follows:

"Any person who shall append the letters 'M.D.' or 'M.B.' or other letters in a medical sense, or shall prefix the title 'Doctor' or its abbreviation, or any sign or appellation in a medical sense, to his or her name, it shall be prima facie evidence of practicing medicine within the meaning of this act. In this act, unless otherwise provided, the term 'practice of medicine' shall mean the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect or complaint, whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever."

This better definition of the "practice of medicine" should facilitate the enforcement of the law and standardize the profession.

An act was passed to provide for the prevention of blindness in the newly-born by fixing the duty of the State Board of Health in regard thereto, and compelling doctors, nurses and midwives to treat the eyes of infants in a certain manner, and to provide a penalty for failure to do so.

The Odell Bill authorizing the sterilization of the mentally defective persons, who are maintained wholly or in part at public expense in public institutions of the state, was passed. This law is so safeguarded that its administration should be beneficial and in some measure prevent the procreation of an undesirable and defective class. It was opposed by those who feared an abuse of the license and that it would tend to degrade rather than uplift morals.

An appropriation of $200,000 was made for the establishment of a farm colony for the humane, curative, scientific treatment of epileptic persons. This would seem to be a very propitious

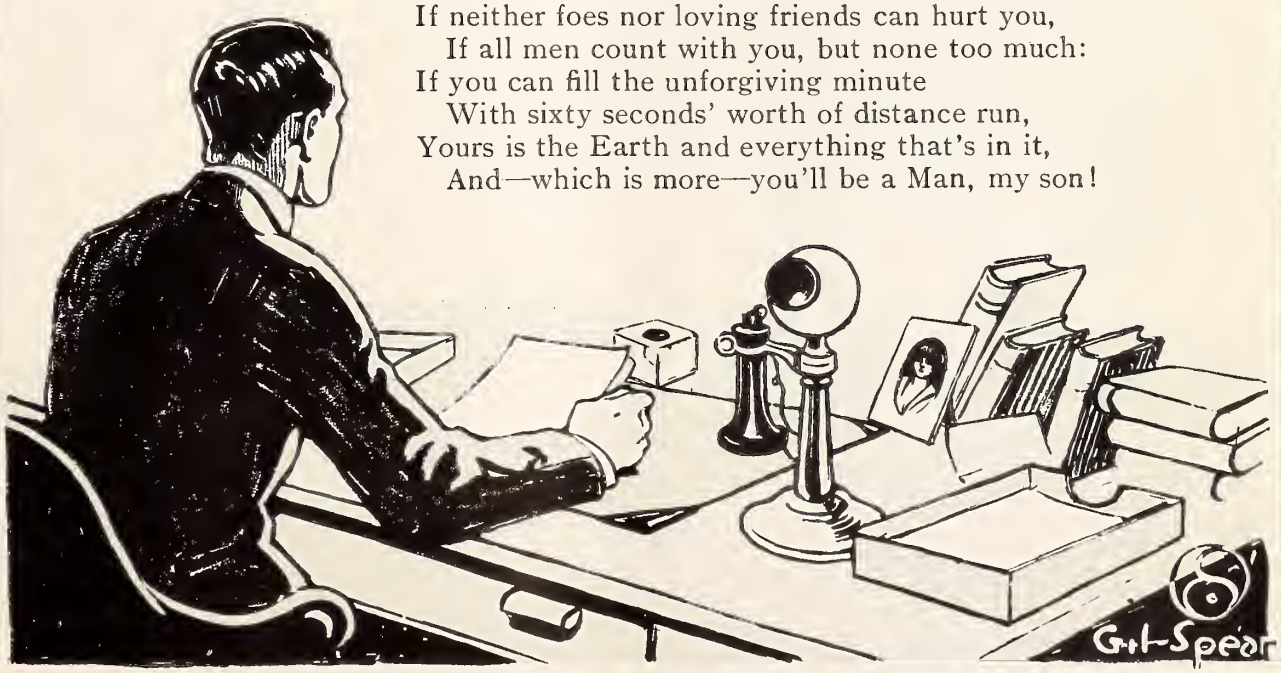
"If" by Rudyard Kipling

IF you can keep your head when all about you
  Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
  But make allowance for their doubting too:
If you can wait and not be tired by waiting,
  Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
  And yet don't look too good, nor talk too wise;

If you can dream—and not make dreams your master;
  If you can think—and not make thoughts your aim,
If you can meet with Triumph and Disaster
  And treat these two impostors just the same;
If you can bear to hear the truth you've spoken
  Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
  And stoop and build 'em up with worn-out tools;

If you can make one heap of all your winnings
  And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
  And never breathe a word about your loss:
If you can force your heart and nerve and sinew
  To serve your turn long after they are gone,
And so hold on when there is nothing in you
  Except the Will which says to them "Hold on!":

If you can talk with crowds and keep your virtue,
  And walk with Kings—nor lose the common touch,
If neither foes nor loving friends can hurt you,
  If all men count with you, but none too much:
If you can fill the unforgiving minute
  With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it,
  And—which is more—you'll be a Man, my son!



From "Reward and Fairies" Published by MacMillan & Company

beginning in the study and care of a large population of unfortunates, who have before been unintelligently treated in the homes or been committed to county houses and insane asylums. In the light of modern sociologic advancement they are properly state charges, and under this law can be made available for observation and research. The location of this colony is a matter of a good deal of importance. Its close relationship with our state university, where the spirit of original investigation is dominant, would be desirable and in line with the purpose of the framers of the bill.

The interest which has been aroused in the consideration of eugenics has had its influence on legislation and has been markedly manifest in the work of the recent session of the law-making body.

Nothing is more indicative of this interest than the passage of a bill creating a commission to investigate the extent of feeble-mindedness, epilepsy, insanity and other conditions of mental defectiveness. This commission is composed of the following members: the medical director of the State Psychopathic Hospital at the University of Michigan, the Superintendent of Public Instruction and the Secretary of the State Board of Corrections and Charities. This commission is instructed to make a report to the Legislature of 1915.

An appropriation was asked for a much-needed hospital for the care of the advanced tuberculous, but was denied for reasons of economy. There is yet much to do in educating the public to the vast expense borne by reason of preventable disease.

MEDICAL LEGISLATION—THE LEADERS IN THE MOVEMENT

W. T. DODGE, M.D.
Chairman, Council, Michigan State Medical Society
BIG RAPIDS, MICH.

The amendments to the medical registration law, passed by the Michigan legislature at the last session, gives the people of Michigan the best law on the statute books of any state. A provision is incorporated, in accordance with the recommendation of the Council of the Michigan State Medical Society, in its last annual report, providing for the licensing of practitioners who desire to treat the sick by other methods than the administration of drugs or the performing of surgical operations, who present evidence of having received the equivalent of a high-school education and being able to pass an examination on certain elementary subjects, without a knowledge of which no one can safely be permitted to apply any form of medical treatment.

Governor Ferris is entitled to a full share of the credit of securing the enactment of this legislation, having recommended it in his annual message and used his influence privately with the legislature to secure its passage.

Doctor Beverly D. Harison, who has served as secretary of the Board of Registration in Medicine since its organization and to whom the medical profession is indebted for much constructive work in bringing the standard of medical requirements to a high point, gave untiring effort to securing the concurrence of the house of representatives in this bill. It marks a fitting climax to his work on the Board of Registration and his labors should receive the thoughtful appreciation of our profession.

Another member of the board, Dr. Bret Nottingham, deserves special mention, for he labored early and late with the representatives at a time when there appeared little hope of success. His name should be added to our roll of fame.

It goes without saying that the president of our society, Dr. W. H. Sawyer, also had his shoulder to the wheel and materially assisted in pushing the bill through.

All honor to the efficient three-horse team!—Harison, Sawyer, Nottingham—unselfish, energetic members of our profession who worked, not for the interests of the medical profession alone, but for the protection of the people of our state from the imposition of ignorant exploiters.

Rectal Cancer.—"Don't forget that rectal cancers, which compose about 16 per cent. of all malignant growths of the digestive tract and about 9 per cent. of all other cancers, are detected less frequently in their early stages than are cancers growing in other parts of the body. This fact is due partly to their insidious development, and partly to neglected or incomplete rectal examination.—*Western Medical Review.*

Prof. Edward Martin of the University of Pennsylvania, writing on the treatment of syphilis in the latest volume of Keen's *Surgery* (Vol. VI, p. 111), says: "Salvarsan is indicated in all stages of syphilis. Given in full dosage and repeated in seven days, it produces its maximum safe effect, and if used in the early stages of chancre, seems capable of producing an immediate and permanent cure. The lesions of syphilis yield more promptly to salvarsan than to mercury, and the Wassermann reaction becomes negative in a larger proportion of cases. It is generally accepted that salvarsan should be supplemented by mercury, the latter being given in doses as large as are compatible with bodily and mental vigor, preservation of appetite and digestion, free elimination, and the holding of the normal weight."

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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The Society does not hoid itseif responsibie for opinions expressed in originai papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

JUNE

Editorials

LEGISLATION

In another part of this issue we present the reader with a résumé of the important enactments of the state legislature in so far as they pertain to public health and the profession, together with comments thereon by the members of the profession who have so willingly devoted their time and efforts towards the passage of these laws. Further comment is hardly called for.

We do, however, desire to call attention to the enforcement of these laws and thereby secure the benefits that should justly accrue from this legislation.

Unless the legislative committees of the county societies adopt such plans and measures as will bring about the enforcement of these acts, the work of securing the laws will have been of little avail. We suggest that there be exhibited a new activity on the part of these county committees and that they interview their prosecuting attorneys to the end that all who are violators of these laws be made to comply with the provisions of these acts. By so doing, Michigan will no longer be accused of being a camping ground for charlatans who prey on an innocent public. The opportunity presents itself of ridding our state and the profession of these undesirable persons. We trust that each society will become so active that the end of the year will see the state deriving the just benefits of the work accomplished by the legislative committee.

THE AMERICAN COLLEGE OF SURGEONS

On May 5, 1913, in Washington, D. C., about 400 of the leading surgeons of the United States and Canada met, by invitation, and perfected the preliminary organization of the American College of Surgeons.

Dr. John T. Finney of Baltimore was elected as the first president, and Dr. Franklin H. Martin, the originator of the movement, was elected secretary. In addition to these officers, a board of regents was elected, composed of fifteen of the leading surgeons of the United States and Canada. With the adoption of a provisionary constitution and by-laws, the election of executive officers and the board of regents, the meeting adjourned to reconvene in Chicago during November of this year, when the permanent organization will be effected.

The object of the organization of this college of surgeons is to establish a strong continental association of surgeons with the object to elevate the standard of surgery on the American continent and to grant fellowship in such an organization which will indicate that the possessor of such fellowship, in the opinion of his peers, is thoroughly qualified to practice surgery.

Thus the first step has been taken towards establishing on this continent an organization that will become a potent factor in maintaining a high standard for American surgery. With this strong corporate body composed of several thousand surgeons, of whose ability there is no doubt, the public opinion of the laity and the medical profession will be so developed that a high standard of surgery will be demanded and maintained, and much-needed reforms will be instituted.

We congratulate the organization committee on their work and achievement. We urge the hearty and earnest support of the profession of Michigan to this college of surgeons. If it holds itself aloof and free from medical politics and politicians, it is destined to become the most potent factor in directing and establishing the standard and requirements for all who desire to devote their life to surgery.

THE PREVENTION OF SUITS FOR MALPRACTICE

"It is almost impossible to get one lawyer to testify against another, while it is always easy to get one doctor to testify against another, and, furthermore, in nearly every malpractice case, the suggestion of a suit comes from one of your own profession."

This quotation taken from Mr. Barbour's article, appearing elsewhere in this issue, is a true and almost irrefutable indictment of the profession. We plead guilty to the charge. We admit the profession's culpability. What are we — you — going to do about it?

There is but one and only one remedy — keep quiet: refuse to express an opinion when asked to pass judgment on the work, skill or acts of another member of the profession; refuse to be inveigled by an attorney to appear as a witness against another physician; and finally, utilize every opportunity that presents to discourage the bringing of a suit.

One of the essential objects of the plan of legal defense by the state society was to unite into closer relationship the profession of the state and thereby cement the membership into one united organization. By so doing it is hoped that any one member will not instigate, inspire or cause, by any word or act on his part, the commencement of a suit for malpractice against a fellow member, unless possibly it might be in an exceptional and extreme case. This object may be attained if the members will but adhere to the remedy suggested in the preceding paragraph, and in addition to this, suits for malpractice will be without convicting evidence if we observe the other precautions recommended by Mr. Barbour.

If the majority of malpractice suits are in most instances blackmail; if the majority of suits will never go beyond the "threat stage" when the plaintiff's attorney finds that it will be difficult to secure expert testimony, and on the other hand finds that the defendant is supported by an impeachable array of expert witnesses; if all this may be accomplished by simple refusal on our part to pass judgment on any case or act of another physician, it then behooves us to so conduct ourselves in the future that these ends may be attainable and the profession thus be relieved from the attacks of shyster lawyers and malingering patients.

THE FUTURE OF THORACIC SURGERY

Pneumothorax and its effects has been the *bête noire* of even the most daring surgeons. As a result of the splendid work of such men as Sauerbruch, Brauer, Petersen, Meltzer, Auer, Meyer, Elsberg and several other investigators and experimenters, surgical pneumothorax and its dangers have been fairly satisfactorily overcome. The surgeon of to-day—utilizing the assistance of either positive or negative pressure or intratracheal insufflation—is able to open the thoracic cavity with more or less impunity and fear as far as pneumothorax is concerned. The port of entrance has been obtained. Entering, what may he reasonably hope to accomplish?

Pathological intrathoracic conditions present a field for the development of surgical possibilities. Will it be possible to satisfactorily ligate some of the branches of the pulmonary arteries? May we in time be enabled to remove malignant pleural and lung neoplasms? How far can we go in instituting surgical procedures in heart and aortic aneurisms? Shall we be able to confidently attack surgical conditions affecting the trachea, esophagus, the mediastinum and the diaphragm? Can we, will we be able to develop this new field so that surgical procedures in the thorax may be undertaken with the same confidence with which we now open and enter the abdomen?

These are the thoughts which cause us to muse on the possibilities of thoracic surgery. We recognize our inability to advance a final solution of the problem. We do feel certain that progress will be made; many of the present barriers will be surmounted; a definite technic will be developed. Possibly not this year, nor the next; but gradually, by dint of years of study and experimentation, greater perfection and more reliable methods will be unfolded and thoracic difficulties will be caused to yield to this method of attack. The men at present at work on this problem, their zeal, enthusiasm and devotion may hasten the day. Mindful though we are of the physiologic function and vital importance of the organs in this region, and their delicate mechanism, we believe that the time is not far distant when they may be subjected to skilful manipulation with end-results, similar to those secured in present-day cranial or abdominal surgery.

By constant endeavor and effort, thoracic surgery should and will be developed to a high stage of efficiency. It remains for the workers in this comparatively new field to remain aggressive and active and by their endeavors to so develop this field that the future will permit us to deal with the thoracic lesions that have in the past remained unamenable to surgical interference.

THE NEW WARD IN THE CHILDREN'S FREE HOSPITAL FOR THE TREATMENT OF INFANT OPHTHALMIA

Carefully prepared statisties show that about one-fourth of all the blind in the United States have needlessly lost their sight. Startling as this statement is, it ean be borne out by faets. The cause of this preventable blindness is infant ophthalmia, a purulent disease of the eye, whieh oceurs in the first few days of the life of a ehild. Scientists tell us it ean be prevented by an application of a very simple remedy if used at the time of birth. Doetors have been writing about this important subjeet for many years, and every text-book on Diseases of the Eye, gives all the details that are neeessary to carry out the treatment. Unfortunately, however, many children are born without medieal attendance, or are frequently neglected through ignoranee or earelessness.

In the year 1880, Professor Crede made the wonderful discovery that one or two drops of a 2 per eent. solution of nitrate of silver dropped into the eyes of the new-born reduced the frequency of the development of infant ophthalmia from 10 per eent. to 0.5 per eent. Wherever this preventive treatment has been earried out properly, the results have eonfirmed the findings of Professor Crede. If, however, this early treatment is neglected and infant ophthalmia develops, most of the babies will lose their eyesight, unless eurative treatment be immediately instituted, whieh results in saving nearly all the eases. The diffieulty has been in carrying out the treatment in every detail. It is necessary that the eyes be cared for at least once an hour, by a skilled attendant, in order to insure the best results.

The infectious nature of infant ophthalmia has made it impossible for the hospitals in the eity to take these eases. and until now, there has been of nccessity a lack of thorough treatment of the disease. To meet this need, the Children's Free Hospital of Detroit, has, through the generosity of one of Detroit's philanthropists, been able to equip a ward of twelve beds for the exclusive treatment of infant ophthalmia, and has asked the physicians of the eity to send all worthy poor, who are so unfortunate as to be afflicted with this malady, there for free treatment. Three nurses are responsible for the care of the cases, each being on duty eight hours, and off sixteen. In this way constant skilled attention ean be given the babies throughout the twenty-four hours.

It would be difficult to estimate the incaleulable benefit that will come from this work. Not only will the patients be saved their sight in the majority of cases and grow up to be useful eitizens, but if we wish to look at it from a material standpoint, the saving to the state in dollars and eents will be enormous.

The eity of Detroit owes another debt of gratitude to the Children's Free Hospital and to those who are giving it their generous support.

Editorial Comments

ARE you making it a point to read our advertisements and to patronize them?

COMMENCE making plans to attend the annual meeting in Flint on September 4 and 5. This is going to be one of the best meetings the society has ever held.

LAST month we published the request for ease reports and are again extending the same invitation. May we not be favored with your report of that interesting ease for our July number?

THE annual meeting of the American Medieal Assoeiation, Minneapolis, June 16-20, promises to be of unusual interest. The program is filled with exeeptionally good papers. You will find that you will be more than repaid if you attend this session. Plan to go; make your reservations early; you will find no better service than that given by the railroads whose accommodations and sehedules are detailed in their advertisements in this issue.

THE AMERICAN PROCTOLOGIC SOCIETY will hold its fifteenth annual meeting in Minneapolis on June 16-17, in eonneetion with, but not interfering with the annual meeting of the American Medieal Assoeiation. The headquarters and sessions of the society will be held in the Hotel Radisson. The profession is eordially invited to attend all meetings.

Dr. Louis Hirschman of Detroit is president of the soeiety and will deliver the president's annual address entitled, "Proetology and Procto-Enterology." The program promises to be of interest. The early arrivals will find it to be to their interest and profit to attend the sessions of this society.

THE many letters—over a hundred—expressing approval and appreeiation of the JOURNAL in its

new form and style, have been duly and gratefully received. We are sorry that we have been unable to acknowledge them all. Sometime we hope to, and in the meanwhile we will continue directing our efforts towards getting out the JOURNAL so that it may continue to merit the approval of our readers and be of interest and value to every recipient.

THE increased number of papers that are being published in the JOURNAL is making it imperative that more original articles be supplied to the editor. The papers of our last annual meeting have been exhausted and we are extending the request that our members send us a sufficient number to keep our columns filled until the October issue. We desire some good practical papers as well as those of high scientific value. May we not be the recipient of one from you?

WE are not inclined to poetical musings, but every now and then we run across some verse or poem that seems particularly appropriate and expresses some thought or sentiment that is germane to the doctor's professional work, or may be construed as applicable to his life and associations. We are publishing, on another page, Kipling's "If." The oftener one reads it the greater will its sublimity appeal, and its implied lessons will cause you to feel better, kindlier, and exhibit to your fellow man the traits of true brotherhood and charity. Were you but able to practice but half of its admonitions, even then "Yours is the earth and everything that's in it."

SINCE April 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Coli Vaccine (Lederle Antitoxin Laboratories).

Gonococcus Vaccine (Lederle Antitoxin Laboratories).

Pneumococcus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Albus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Aureus Vaccine (Lederle Antitoxin Laboratories).

Streptococcus Vaccine (Lederle Antitoxin Laboratories).

Typhoid Vaccine (Lederle Antitoxin Laboratories).

Typhoid Vaccine for Prophylactic Treatment (Lederle Antitoxin Laboratories).

IT is your duty to patronize our advertisers. We admit that we are sermonizing in every issue on this point. We are compelled to do so by reason of necessity, for unless we show our advertisers that their copy in the JOURNAL pays, we will be unable to secure their continued patronage, and without a large volume of advertising receipts we will be unable to attain the ends for which we are striving—a larger, better and more valuable journal. So again we say: Read our advertisements; patronize them; tell them why you are doing so; ask the agent who calls on you if his firm advertises in the JOURNAL; give your orders to those firms who favor you by advertising in the JOURNAL.

IT was our privilege recently to attend a meeting of one of the county societies in the western part of the state. This county has nineteen physicians and every one of them is a member of the county society. The meeting was held at eight o'clock in the evening and when called to order, seventeen of the nineteen members were present. Two of the doctors drove twenty-six miles over rough and muddy roads to attend this meeting, and, on adjournment, which ended in a nearby restaurant where a luncheon was served, these two members at *midnight* commenced their twenty-six-mile drive homeward.

Three other members came by train. Train schedules were such that it was necessary for them to stay over night. When they went to the hotel they found every room occupied. These three doctors spent the night sleeping as best they might on improvised couches in the hotel hallway.

These five men are what we are pleased to call country practitioners — men who work hard; make long drives in all kinds of weather and over all roads; they are in the harness, so to speak, from morning till night. In place of utilizing the time necessary for attendance on their society meeting for rest, they gladly and willingly subjected themselves to added discomfort in order that they might be loyal to their county society. We honor them for it; we are glad we had the pleasure of meeting such men; we now know why that society, even though it is small, is one of the best in the state. Undoubtedly there are many other societies whose members subject themselves to similar discomforts and efforts to attend their society meetings. We hope some day to meet them all and shall prize their acquaintance.

To those of you on whom no such discomforts fall while attending the meetings of your society —you who can step into your car and after a

short drive over paved streets arrive at your meeting place; you who have but a five- or ten-minute walk down a clean sidewalk; you who have the conveniences of a street car service—to you we wish to put the question: Are you attending your local meetings regularly; are you doing your part in advancing the work of your county medical society? Will you not make an effort to throw aside your mantle of apathy and with your added support and effort assist in building up your local society and through it the state society? You owe it to yourself, your associates and your state. Are you willing to assume your duty at once? You owe it to these men.

State News Notes

On June 1st, Dr. S. Monroe of Carson City will enter practice in Berlin.

Dr. A. A. Solberg, formerly of Palmer, Michigan, has entered practice in Ishpeming.

Dr. G. W. Orr of Torch Lake has been appointed health officer for Schoolcraft township.

The Council of Olivet has appointed Dr. Phil. H. Quick health officer for the ensuing year.

On May 1, the mayor of Hastings appointed Dr. Hiram H. Barber as city physician for Hastings.

The Bessemer Herald announces the marriage of Dr. Chas. C. Staack and Mrs. Esther Schuler on March 26.

Dr. Wm. Melody of Detroit has been appointed pension examining surgeon by the department of the interior.

Desiring to devote his entire time to private practice Dr. Edward Goodwin tendered his resignation to the council of Bay City on May 2.

Dr. C. B. Fulkerson of Kalamazoo has been invited to read a paper on "School Hygiene" at the Fourth International Congress on School Hygiene to be held in Buffalo on Aug. 25-30.

The 38th annual meeting of the American Academy of Medicine will be held in the Leamington Hotel, Minneapolis, June 13, 14 and 15. The preliminary program foretells an excellent meeting.

A meeting of the Alienists and Neurologists of the United States will be held in Chicago, June 24-27, 1913, the week following the meeting of the American Medical Association. The meeting is the outcome of a similar one that was held in 1912 under the auspices of the West Side Branch of the Chicago Medical Society.

Dr. C. F. Karshner of Big Rapids will take the offices adjoining Dr. W. T. Dodge which are soon to be vacated by Dr. Spoor. Dr. Spoor intends to continue the practice of medicine in some one of our Western states.

Kalamazoo county has bonded for an additional $10,000, which will be used in erecting a tuberculosis sanitarium for the county. The city of Kalamazoo some time ago voted to bond for $20,000 for the hospital. This provides $30,000 for the erection of this new sanitarium.

On March 6th, Governor Ferris signed the medical bill that was passed by the recent legislature. The bill has accomplished more than was at first realized. It seems that this bill will cause the peddlers of patent medicines to cease the dispensing of drugs from their wagons throughout the country districts. The Governor was besieged by telegrams and personal interviews from hordes of people who in the past have been violators of the law. Great credit is due Governor Ferris for his determined stand in favor of better medical legislation.

The Extension Committee of One Thousand of the Detroit College of Medicine is issuing a weekly bulletin. The following is taken from one of the issues:

"The Extension Committee of One Thousand will constitute a body of workers, laymen as well as physicians, who are pledged to give active support to the building of a greater College of Medicine in Detroit. It is expected that a most liberal support will be given by physicians who are not and have not been connected in any way with the Detroit College of Medicine during its history as a privately owned institution."

W. B. Saunders Company, publishers of Philadelphia and London, have issued another edition (17th) of their handsome illustrated catalogue.

In going through this edition we find it describes nine new books and ten new editions, not described in the previous issue. These new books are of great interest to the medical man, because they treat of subjects being daily discussed in medical circles.

Any physician can get a copy of the Saunders catalogue by dropping a line to these publishers. A copy should have a place on the desk of every physician, because it is most valuable as a reference work of modern medical literature. Send to Saunders to-day for a copy.

At the annual meeting of Butterworth Hospital, Grand Rapids, on March 31, the following reports were rendered:

Total receipts, $51,688.98.
Total expenditures, $50,957.21.
Patients admitted during the year, 1,880.
Patients admitted to the Maternity Cottage, 154.
Patients treated in the free dispensary, 540.
Average cost per day per patient, $1.92.
Average receipts per day per patient, $1.72.

This has been the largest year in the history of the institution and a cursory study of the above extracts from the reports will enable one to conceive the excellent work that has been done. A seventy-five bed hospital caring for 1,880 cases of which 1,293 were surgical, 587 medical and 154 maternity with a mortality in all these cases of less than 2 per cent. may be deservedly complimented for their work. Accident cases to the number of 306 were cared for.

The following members of the profession in Michigan participated in the program of the Ninth Triennial Session of the Congress of American Physicians and Surgeons held in Washington, D. C., May 6-7, 1913. We append the titles of their papers.

AMERICAN GYNECOLOGICAL ASSOCIATION.

By Invitation:—The Diagnostic Value of the Electrocardiograph Before Gynecological and Obstetrical Operations. (Lantern Demonstration.)

HUGO A. FREUND, M. D., Detroit.

Review of 2500 Gynecologic and Obstetric Cases with Reference to Cardiac Complications.

REUBEN PETERSON, M. D., Ann Arbor.

The Calcium Content of the Blood During Pregnancy, Labor and the Puerperium.

W. H. MORLEY, M. D., Detroit.

Thrombosis and Embolism Following Operation and Child Birth. BENJ. R. SCHENCK, M. D., Detroit.

AMERICAN DERMATOLOGICAL ASSOCIATION.

The Consideration of Two Outbreaks of So-Called Pemphigus Neonatorum.

ANDREW P. BIDDLE, M. D., Detroit.

ASSOCIATION OF AMERICAN PHYSICIANS.

Heredity with Reference to Neoplasms as shown by a Study of 300 Cases Examined in the Pathological Laboratory of the University of Michigan during the Years from 1895-1913.

ALDRED S. WARTHIN, M. D., Ann Arbor.

AMERICAN PEDIATRIC SOCIETY.

The Poisonous Groups in the Protein Molecule.

VICTOR C. VAUGHAN, M.D., Ann Arbor.

The Present Status of the Treatment of Pulmonary Hemorrhage.

VICTOR C. VAUGHAN, JR., M. D., Detroit.

A New and Rapid Method for the Estimation of Total Fats in Infants' Stools.

D. M. COWIE, M. D., and W. S. HUBBARD, M. D., Ann Arbor.

Studies on the Incubation Period.

D. M. COWIE, M. D., Ann Arbor.

AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS.

Serological Findings in a Case of Polycythemia.

HUGO A. FREUND, M. D., Detroit.

The following Michigan men attended the meeting of the Triennial American Congress of Physicians and Surgeons held in Washington, D. C., May 5-9, 1913.

DETROIT

Walter H. Parker	Wm. F. Metcalf
Max Ballin	L. J. Hirschman
V. C. Vaughan, Jr.	E. K. Cullen
J. W. Vaughan	Hugo Freund
H. R. Varney	A. P. Biddle
W. E. Blodgett	B. R. Schenck
—— Malloy	H. M. Rich
A. D. Holmes	J. N. Torrey
W. H. Hutchings	B. R. Shurley
W. H. Morley	Angus McLean
H. W. Longyear	T. A. McGraw
E. B. Smith	F. H. Walker
A. W. Blain	C. G. Jennings

GRAND RAPIDS

B. R. Corbus	J. D. Hastie
Ralph Apted	C. H. Johnston
A. M. Campbell	R. H. Hutchinson
John Kremer	R. R. Smith
W. D. Lyman	F. C. Warnshuis

ANN ARBOR

V. C. Vaughan, Sr.	C. G. Darling
C. B. de Nancrede	R. B. Canfield
A. S. Warthin	D. M. Cowie
Reuben Peterson	W. S. Hubbard

FLINT

C. B. Burr	J. G. R. Manwaring

PETOSKEY

F. C. Witter

Society Proceedings

DETROIT OTOLARYNGOLOGICAL SOCIETY

Dr. P. J. Livingstone, president.

February 18

The Society visited the Ear, Nose and Throat Department of the Eye and Ear Hospital of the University of Michigan in Ann Arbor. Numerous ear, nose and throat cases were shown by Dr. B. R. Canfield and a mastoid operation was performed by him in the presence of the members.

March 18

Dr. Harold Wilson read a paper, entitled "Some Remarks on Meningitis, with a report of Two Fatal Cases in which Hayne's Operation Was Performed." Dr. P. M. Hickey exhibited a pencil which he had removed from the right first bronchus and he demonstrated a number of Roentgen plates of the head.

April 15

No meeting.

EMIL AMBERG, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held Thursday, April 17, 1913. An orthopedic clinic was held at 9 a. m. in the offices of Drs. Secrist and Secrist, the demonstrator being Dr. William Blodgett of Detroit. Ten cases were presented, four proving to be infantile paralysis, one congenital dislocation of the hip, one tuberculosis of the hip joint, one webbed fingers, all of which proved very valuable to the members present.

At 12:30, Drs. Leo Secrist, W. A. Secrist and J. W. Small entertained the society to a dinner at the Alpena House, following which the program of the day was given.

Those present from out of town, besides the guest of honor, Dr. William Blodgett of Detroit, were Dr. and Mrs. Purdy of Long Rapids, Dr. Wm. Henryes of Wilson, and Dr. George Lister of Hillman. Those present from Alpena were: Drs. Small, Secrist, McKnight, Dunlop, McDaniels, Cameron, Bell, Secrist, Bertram, Ganoreau, Williams and Smith.

The committee on contract work submitted the following resolution on contract work: "We, your committee, beg to report that in our opinion, all contract

work (except railroad and steamboat) can only be prejudicial to the best interests of the profession, and recommend that all contract and society work be declined by the members of this Society at other than our regular schedule of prices, to take effect on and after July 1, 1913. Signed

D. A. CAMERON,
J. D. DUNLOP,
W. A. SECRIST, Com.

All the physicians agreeing to abide by the resolution, the same was adopted.

Dr. Blodgett discussed the relation of orthopedic specialists to medicine in an able manner, pointing out the refinements in orthopedic surgery in the past few years.

As an evidence of the appreciation in which Dr. Blodgett's visit to Alpena was received, he was made an honorary member of the society, on motion of Dr. J. D. Dunlop, supported by Dr. Leo Secrist.

C. M. WILLIAMS, Sec.

BAY COUNTY

During the month of April five good meetings were held by the Bay County Medical Society with an average attendance of twenty-five. The social side has not been neglected and the feeling of good fellowship among the members has probably never been stronger.

At the March 11 meeting, Dr. H. M. Earle read a paper on "Seemingly Insignificant Spinal Injuries; Importance of a Guarded Prognosis."

On March 18 a dinner was given at 6 p. m. at the Wenonah to meet our guest, Dr. Don M. Campbell of Detroit. At 8 p. m. the meeting was called to order and Dr. Campbell read a paper on "Accessory Sinus Infection." A vote of thanks was extended the doctor for his courtesy in giving us this paper.

Dean Victor C. Vaughan was with us March 25 and met a number of the members at dinner in the Wenonah Hotel after which he gave a short talk. Later in the evening he gave a talk on "Disease Prevention" at the First Baptist Church to which the general public was invited.

On April 1 Dr. L. J. Hirschman of Detroit gave a paper on "The Colonic Factor in Chronic Constipation and Diarrhea, and Its Treatment," illustrated by lantern slides of x-ray plates. This was one of the most interesting and valuable papers of the year. Preceding the meeting about twenty-five members met Dr. Hirschman at an informal dinner in the ordinary of the Wenonah Hotel.

The regular monthly meeting of the society was held on April 8, at 8 p. m., at the residence of Justin Wentworth. Five members of the society acted as hosts. The paper of the evening on "Prostatic Disease" was read by Dr. G. W. Trumble. The paper was illustrated by a large chart prepared by Dr. Trumble. Drs. McNaughton of Standish and Ovenshire of Bay City were elected to membership. The society voted to extend to Dr. F. Stone, one of the hosts of the evening, its regrets that he was unable to be present and its sympathy and best wishes in his sickness. After the program a delightful fish supper was enjoyed followed by a social session with music and reminiscences.

April 15 was ladies' night, the first the ladies could remember for a number of years. A banquet was given at the Bay City Club which was very largely attended. Following this, Rev. Fr. Thomas Rafter gave an address on the dignity and importance of the medical profession. The balance of the evening was spent in getting acquainted. The program committee states that this is not the last affair of the kind.

On April 22 the society met at the residence of Dr. A. W. Herrick as guests of five members of the society. The paper of the evening on "Arteriosclerosis," was read by Dr. J. W. Hauxhurst. This paper will probably be printed in full in THE JOURNAL, as it was considered one of the best given before the society this year. A buffet luncheon was enjoyed after the program, followed by music and a social session.

The last meeting in April was held at the Wenonah Hotel, at 8 p. m., April 29. Dr. Wm. M. Donald of Detroit read a paper on "Dietetics," which was very well received. A number of the members met the doctor at dinner preceding the meeting.

The death of Dr. G. W. Williams, an honorary member of our society, was announced at this meeting and arrangements were made for attending his funeral. The society adjourned until May 13.

BERRIEN COUNTY

The regular monthly meeting of the Berrien County Medical Society was held at Library Hall, Benton Harbor, Thursday, May 8, 1913, at 4 p. m. The following very interesting papers were given: "Diagnostic Pitfalls Encountered by the General Practitioner," Dr. N. A. Herring, Benton Harbor; "Management of Contused and Lacerated Wounds," Dr. Irving J. Becknell, Goshen, Ind.

Dr. J. W. Kistner exhibited a very interesting case of Hodgkin's disease in a boy nine years of age.

Application was received from one new member.

This was one of the best attended and most enthusiastic meetings in several months.

CARL A. MITCHELL, Secretary.

CALHOUN COUNTY

Second scientific meeting of the Calhoun County Medical Society was held in the rooms of the Chamber of Commerce, Battle Creek, on Tuesday afternoon, May 6, with about thirty-five members in attendance, and visitors from Kalamazoo and from Charlotte.

The first subject discussed was "Puerperal Septicemia," presented by Dr. Gertrude Johnson of the Battle Creek Sanitarium, who reported a case with recovery after a most desperate condition and under serum treatment.

Dr. F. B. Marshall of Muskegon was present by invitation and gave a very excellent paper on "Hyperthyroidism, Medical and Surgical Treatment." Dr. Marshall dealt with this subject very ably and gave reports of some very interesting cases which had come under his personal observation. The discussion which followed was profitable for all present.

The meeting closed with a discussion of the subject of tetanus, the author reporting three cases from his personal experience, two of which had recovered, one because it was a very mild case, and the other after a most desperate battle and following the administration of enormous doses of antitetanic serum.

A. F. KINGSLEY, Sec.

GRAND TRAVERSE-LEELANAU COUNTY

The May meeting of the Grand Traverse-Leelanau County Medical Society was held Tuesday, May 6, 1913. Two applications for membership were received.

Dr. O. E. Chase presented a paper on "The Duties of the Physician and Surgeon to the Public." This was followed by a paper by Dr. J. J. Brownson on "Summer Diarrhea of Children; Their Causes, Management and Treatment."

JAMES A. J. HALL, M.D., Sec.

HOUGHTON COUNTY

The regular monthly meeting of the Houghton County Medical Society was held Monday evening, May 5, 1913, at the Miscowanbik Club at Calumet.

Doctors A. F. Fisher and A. I. Lawbaugh were appointed to read papers at the Upper Peninsula Medical Meeting, which is to be held at Ishpeming in July.

The large number of members present were very enthusiastic and enjoyed the good program. The first to speak was Mr. John T. Rowe, State Deputy Food Inspector, who gave a long talk on his inspection of the dairy and food products of Houghton County. A great deal has evidently been done, for the report of the condition existing when Mr. Rowe took charge was almost unbelievable. There is still a great deal to be done, but as long as the petty milk deliverers are not compelled to bottle the milk, unsatisfactory conditions will exist. They all should be licensed in the respective townships or villages.

The county is considering the matter of a milk commission; it has also sanctioned the Board of Supervisors' call for inspection of cattle before entering the county.

The next paper was read by Dr. P. D. McNaughton, who gave a most elaborate description of "Diseases of the Accessory Sinuses." The subject, though somewhat difficult to grasp by the general practitioner, was made most instructive by the use of lantern slides which showed the infected sinuses and the methods of treatment by operation.

President W. T. S. Gregg thanked both Mr. Rowe and Dr. McNaughton for their time and effort and the meeting was adjourned to the luncheon parlor, where a spread and smoker were enjoyed.

ALFRED LABINE, Secretary.

INGHAM COUNTY

The meeting of the Clinical Club of the Ingham County Medical Society, held in the Nurses' Lecture Room at the Sparrow Hospital on April 15, 1913, was very profitable in interest and instruction.

Dr. Carl D. Camp, professor of diseases of the nervous system at the University of Michigan, held the close attention of all for nearly three hours in the demonstration and discussion of the great variety of the neurologic pathology that was presented by a large number of well-selected patients. He emphasized the importance of finding obvious stigmata before diagnosing hysteria, instead of coming to such a conclusion on the negative evidence of exclusion only. Epilepsy he thinks should always be regarded as a manifestation rather than as a disease entity. The presence, among the patients, of a paretic railroad engineer called out remarks along that line, indieating the advisability of subjecting such men to periodical neurologie examinations. The Wassermann test, Dr. Camp thinks, should be used more frequently in the diagnosis of obscure neuroses.

HENRY S. BARTHOLOMEW, Secretary.

KENT COUNTY

At the regular meeting of the Kent County Medical Society on April 23, 1913, at the Board of Commerce Chambers, Grand Rapids, Dr. Henry R. Varney of Detroit presented a paper on "Acne." The discussion which followed was opened by Dr. Charles E. Hooker. Dr. N. H. Kassabian at this meeting gave his impressions of Dr. Friedmann and his much exploited cure, obtained on his recent trip to New York, made for the express purpose of investigating the results of Dr. Friedmann's treatment.

Dr. Paul M. Pilcher of Brooklyn, N. Y., read a paper entitled "Obstructive Prostatic Hypertrophy; Its Effect on the Patient and Its Relief," at the May 14 meeting of the Kent County Medical Society. In his paper Dr. Pilcher presented a series of prostatic cases that he has operated on, detailing the conditions for which the operations were done, the latest technic of operation and the results. Lantern slides showing the operation and views of the bladder as seen through the cystoscope illustrated the paper. The discussion fonowing was opened by Drs. Wm. J. Du Bois and Schuyler Graves. E. W. DALES, Sec.

MONTCALM COUNTY

The Montcalm County Medical Society had a very interesting meeting in Greenville on the 10th ult. The attendance was very good and the interest manifested was refreshing.

Dr. F. A. Johnson of this city read an excellent paper on "The Present-Day Aspect of Autogenous Vaccination." Reference also of neo- and salvarsan. This paper was discussed by every one present. On motion the paper was asked for publication in the state journal.

Dr. J. O'Dell Nelson of Howard City gave the Society some very interesting suggestions in a paper as to how we can make our meetings of a more general interest. He emphasized the social element as a great factor in making a greater interest; also having as frequent meetings as the Society can possibly have.

We had with us Dr. John L. Burkhart of Big Rapids, who for twenty years has been connected with the U. S. Army in a medical capacity. The doctor was in earlier days an enthusiastic member in the Tri-County Society of Ionia, Montcalm and Meeosta, and in the debates he showed that the old enthusiasm for medical societies had not abated.

H. L. BOWER, Secretary-Treasurer.

MONROE COUNTY

The regular quarterly meeting of this Society was held in Monroe on Thursday, April 17. Ten members were present, which is a good attendance for this time of the year. We had as guests Drs. Louis A. Levison and P. H. Jacobson of Toledo.

Dr. Levison gave a very interesting and instructive paper, subject "Syphilis, its Modern Treatment."

Dr. Jacobson gave a talk on "Internal Secretions, Especially the Thyroid." He took the stand of a surgeon. This was also a very instruetive and interesting paper.

Dr. Aeker read a paper, subject "Small-pox." As we are having an epidemic of this disease at the present time, it was a most timely subject and brought out many good points on both small-pox and vaccination.

All papers were freely discussed by all present and at 4:30 p. m. we adjourned to meet in July for the annual boat-ride and dinner.

CHAS. T. SOUTHWORTH, Secretary.

WAYNE COUNTY

The Wayne County Medical Society held a joint meeting with the Detroit Retail Druggists' Association at the Medical Building, May 5, 1913. Mr. Webster, the president of the Druggists' Association, presided. The subject discussed was the Prescription. Prof. W. L. Scoville opened the discussion. The responsibilities of the prescription were dwelt on. It deals directly with life and health. As knowledge increases, responsibility increases. With all of our advancement, life still remains unsolved. No one has as yet created life. As far as the pharmacist is concerned, the responsibility is toward the public, physician and the law. Laws to regulate pharmacy are quite ancient and are no new thing. Schools and scientific theories are recognized by law. The next edition of the Pharmacopeia will make even higher standards. The pharmacist is required to know more of bacteriology than the physician of a few years ago.

Dr. J. H. Carstens spoke from the physicians' standpoint. The medical side of the prescription is two or three fold. We expect the prescription to be properly filled as written, with proper and fresh drugs. Physicians sometimes make mistakes in writing prescriptions and the druggists sometimes have to call up the doctor as to the quantity prescribed. The druggist may also err and should be protected by the medical man. When patients have been the rounds, the doctor tries something that hasn't been given before, in order to get a mental impression needed to cure the patient. The patient sometimes claims the prescription, but the druggist is the one entitled to the original prescription, and the patient can be given a copy if he demands it. The relations between the druggist and the physician are much less strained than in time passed.

Dr. W. J. Wilson, Jr., spoke from the standpoint of both druggist and the doctor. Very few mistakes are made by the pharmacist in compounding prescriptions. Doctors should write prescriptions instead of dispensing the medicine, that the medicine may suit the patient rather than giving him what you may have on hand. Every doctor should keep a copy of every prescription written.

Mr. W. H. Hall spoke of the advantage of writing prescriptions. An error found in a prescription should be kept from the knowledge of the patient. Some prescriptions should not be refilled except by special direction of the physician. A prescription written for one party should not be refilled for another party.

Dr. J. E. Davis spoke of the time which patients often have to wait to get their prescriptions filled. The prescription should have the right of way in a drug store over the postage stamp, soda. etc. The old time pharmacist used to be a better dispenser than the present day one, because he had fewer things to deal with. The advantage of dispensing morphin and bromids is that the prescriptions cannot be refilled time and time again.

Mr. Mann referred to the pharmacist as the court of last resort, because no one comes after him to check up his mistakes. The Pharmacy School of the University of Michigan is perhaps the best in the United States, and yet very few of the graduates are going into retail pharmacy. This is the result of the poor remuneration open to young pharmacists. The charges made by pharmacists might well be doubled, in order that the remuneration may be adequate. It is getting almost impossible to get good men to go into pharmacy for this very reason. The pharmacist must be commercial as well as professional, and it depends largely on the individual which side shall have the emphasis.

Dr. G. L. Kiefer spoke of the sale of antitoxin. The Board of Health gives away antitoxin, not only for protection of the community, but for treatment in families unable to pay. The Board has been criticized for taking away legitimate business from druggists in these cases.

Mr. Mann spoke of the profits in the sale of antitoxin. The druggists have no objection to the giving by the Health Board to indigent patients, but to those who can pay a proper charge should be made.

Dr. B. D. Harrison called attention to the fact that the Pharmacopeia is overloaded. The doctor who dispenses his own medicine knows what he is giving much better than he who writes prescriptions.

Prof. Scoville closed the discussion. Half truths are simple and whole truths are complex. It is good to see the good feeling between pharmacists and physicians. There are peculiar risks and conditions in the manufacture of antitoxin which makes the price high, although reasonable. The oldest college of pharmacy in the country has been denied recognition by the Board of Regents of New York because of low standards.

The Committee on Drug Deterioration made a report which was adopted.

Drs. Otto Lang and Raymond J. Groux were elected to active membership. Mr. J. G. Hackney and J. Early were elected to associate membership.

Dr. Kiefer placed the nomination of L. J. Hirschman for president for the ensuing year. Dr. Don M. Campbell was nominated as vice-president. Dr. R. L. Clark was nominated as secretary for the ensuing year. Dr. F. B. Tibbals was nominated as treasurer for the ensuing year. The meeting was adjourned to be entertained by the Retail Druggists' Association.

The Committee on Drug Deterioration appointed by the joint meeting of the Detroit Retail Druggists' Association and the Wayne County Medical Society would respectfully report:

That recent investigations of the fluid extracts show that with few exceptions, they retain their potency for a number of years when kept under proper conditions, that is, without access to air, or exposure to light.

With such drugs as hydrogen peroxide in which the absolute limit of potency is eighteen months, and the probable limit from six to twelve months, we would recommend that the manufacturers state on the label the date of manufacture as well as the limit of potency.

We would recommend that the practice of keeping all liquid preparations, such as tinctures, fluid extracts which deteriorate on exposure to light, preferably in lightproof cupboards, or in an amber colored bottle not exposed to direct sunlight, with the usual precautions of a tight fitting and air proof stopper, be made universal.

We would also recommend that the subject of drug deterioration be made one of the leading topics for discussion in all the state and national pharmaceutical and medical societies in the meetings of the near future.

The Surgical Section held its regular meeting April 28, 1913, with Dr. W. H. Morley in the chair; Ray Andries, secretary.

Dr. Walter Manton read the paper of the evening on "Complications and Results of Abortion."

With abortion increasing in occurrence until it terminates from one-quarter to one-third of all the products of conception, and with the maternal mortality and morbidity rate decreasing almost imperceptibly, the attention of medical men to this subject is being arrested. The disturbances arising from what would otherwise be a more or less smooth phenomenon are due to hemorrhage, retention of the products of conception, infection and trauma. During the first two months of pregnancy, hemorrhage is most apt to be fatal to the fetus. But during the third and fourth months the fetus displays amazing resistance. Operation, then, should only be undertaken after the careful weighing of these facts. The hemorrhage is rarely fatal to the mother in the early months. It is the steady leak over a long period of time depleting the mother's general condition which demands the most consideration.

Failing to get rid of the entire product of conception, the uterine pathology becomes immediately or remotely complicated. Infection is by far the greatest factor in disturbances in this tract. The most virulently fatal germ is the streptococcus, although the so-called lower grade organisms contribute more frequently to the morbidity. Instruments and artifices have been introduced, criminally, into as many different places as there are cubic centimeters in the pelvis. The high death-rate 6 to 10 per cent. and the high rate of morbidity, 50 to 65 per cent. must be attributed to this class of cases.

Dr. Palmerlee reported a case of inguinal hernia in a baby six weeks old. The baby weighed 6¾ pounds at operation. Some fluid, darkened bowel and the appendix were found in the sac.

Dr. G. H. Palmerlee was elected chairman of the section for the ensuing year. Dr. Frederick Cole was elected secretary.

County Secretaries' Department

ADVANTAGES OF A BULLETIN TO A COUNTY MEDICAL SOCIETY

There have been few, if any, enterprises of great success which have not included in its forces for enlargement, some common medium of communication from the officials to the members and others. This is abundantly illustrated in the publications which come regularly from pharmaceutical houses, from manufacturers of ligatures and surgical appliances, from boards of health, from insurance companies, and from church organizations.

People become interested in enterprises which are active—in organizations which *do* something. Some benefit must be derived or interest will not be manifested. However, it is just as important to let men know that something is going to take place as it is to have that thing occur. A "sale" in a drygoods store would be of little value, if that sale were not advertised widely.

The same principles are involved in the matter of conducting a medical society successfully. First, that society must have something worth attending, and then a wide publicity must be given to those concerned. Without a means of communication like a bulletin, the latter phase of the work is indeed difficult. As the success of the catalogue houses depends greatly on the description of details about articles advertised for sale, so does the success of a medical society depend on more than the mere announcement that one or two men are to appear on the program. Often a large number of the membership may not have a complete knowledge of a certain man's ability and a few words of introduction helps greatly in creating interest in his paper. Also, the effect is very much better if certain specific items of business are advertised to come up at a certain meeting, than if simply a "business meeting" is scheduled.

It has been said that one can do almost anything if he is sufficiently interested. Even doctors, busy as they are, can find time to attend medical meetings and to take part in them, if they are sufficiently interested. In fact, the success or failure of a society seems to depend on the degree of *interest* manifested by the membership in its activities. A bulletin undoubtedly creates more interest among the membership than any other feature of the organization. A favorable and valuable interest may be created even in those doctors who never attend the meetings.

There are many localities where it is geographically almost impossible to attend medical meetings; or, at most, once or twice a year. In other instances work of an emergency nature comes up which prevents attendance. The bulletin is here of especial importance, since it will contain abstracts of the papers which were given at the previous meeting. These will bring the essentials to the minds of those who were absent and help to keep them informed. It will also report those items of business or social interest which have been acted on by the society. Keeping the absentee informed is a large mission of the society bulletin.

From an increased interest created through good programs and publicity, the attendance is invariably improved. Increased attendance in turn not only improves the interest, but also gives to the society a manifestation of life which reacts kindly on both the speakers and the mem-

bers. A closer mingling of physicians also breaks down many false feelings of jealousy and discord, and builds up a stronger bond of fraternalism. So often the faults of a fellow practitioner seem to vary directly in proportion to the distance at which we keep him from ourselves.

When a society is alive and enjoys good fellowship and has a good attendance at its meetings, the program committee has very little trouble in filling the programs with desirable speakers. The bulletin, in being sent to sister societies, will help to create a state-wide approval of the organization which it represents. When a county society publishes a bulletin, it can create much favorable local impression also, by putting many laymen on its mailing list. Teachers, lawyers, ministers and clubwomen are often greatly interested in some of the topics which come up during the year. If invited to attend, they sometimes do so, and the result of the interest thus created has a decidedly good effect in the community.

Perhaps the item of cost keeps some societies from publishing a bulletin. This, however, is not as great a barrier as may be supposed. Every community has merchants who have goods used particularly by physicians, and a bulletin can write a letter to all the doctors for them much cheaper than they can send even a mimeographed one-cent communication. We must also remember that it costs a considerable sum to print and mail even a postal card with a brief announcement, and this should be considered in the item of cost of a bulletin.

We come to these conclusions from our experience in the publication of the *Bulletin* of the Kalamazoo Academy of Medicine. Before the bulletin was published, the average attendance was 26.5 once a month. The first year the bulletin was published the average attendance was 32.4 with meetings twice a month. The second year showed an average attendance of 37.8 twice a month, while the average for the present year will be nearer 50. The interest of the members and committees is proportionate, and the society is now probably 90 per cent. or 95 per cent. congenial.

C. E. BOYS, Kalamazoo.

THE above article is the first of several articles which we hope to publish in this department. Each one of them will have a bearing on the work of the county society and its secretary. May we not receive your comments on, and your discussions of them? Remember this is your department, dedicated to assisting you in your work. You are free to give your views and your questions are just as welcome. May we not hear from you for our next issue?

SUMMER weather does not necessarily mean that all interest in your society work should be stowed away until fall. We have found that doctors enjoy outings and the relaxation they bring. Why not get in touch with the secretary of your neighboring society and with him arrange a joint open air meeting or picnic? Invite the doctors' wives and devote a day to profit, pleasure, relaxation, and the establishing of new or the cementing of old acquaintances. Try it.

AGAIN we want to remind you of our desire to have your meetings reported in the department of County Society News. Kindly make it a point to send a report of *every* meeting you hold. Some of the secretaries have not reported a single meeting during the past six months. May we not hear from them?

No better description or statement can be made of the objects of a county society than this one, advanced by former President Cooke of the Tennessee State Society: "One compact society, with a view to the extension of medical knowledge and the advancement of medical education and the enactment and enforcement of just medical laws. To the promotion of friendly intercourse among physicians and the fostering of their material interests and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more honorable within itself and more useful to the public in prolonging and adding comfort to life."

Public Health

STATE BOARD OF HEALTH LABORATORY

A very important factor in the public health work of Michigan is the State Board of Health laboratory. The laboratory was established in 1907, and has proved its usefulness, particularly to physicians in establishing their diagnoses and to health officers in locating sources of infection and determining basis for release from quarantine.

During the past two years the work of the laboratory, as reported in the monthly bulletin of the State Board of Health, has increased 100 per cent. Every reasonable effort has been made to make this division of the state health department of practicable service to the physicians,

health officers, municipal authorities and the people generally.

Many physicians do not, perhaps, know of the existence of the laboratory and the services which it aims to render. It is therefore in order to say a few words regarding this important feature of the state's department.

Section 3, Act 109, Public Acts of 1907, as amended by Act 122, Public Acts 1909, setting forth the legal scope of the work of the laboratory may well be copied in full, with special request that it be carefully read and considered. "Sec. 3. The various boards of health, health officers and all state institutions may require a bacteriological examination or analysis of blood, sputum, urine, water, milk, or other substance in localities where there is an outbreak of any contagious disease or epidemic in which bacteriological examination or analysis may be necessary to the public health and welfare, or for the purpose of locating sources of infection, or contamination of water, milk, ice, etc., as the case may be. The said state board of health shall also be required to make an examination and analysis of the water used by the public, and of public water supplies, when contamination is suspected, whenever the examination or analysis is required by the mayor of any city, the president of any village, or the supervisor of any township. Such boards or officers shall forward or deliver to the secretary of the state board of health a sample of the substance required to be analyzed, in a sealed package or jar accompanied by a statement from such board or officer, indicating the necessity for the analysis. The examination or analysis for the boards or officers above named shall be made free of charge. The state board of health shall also make a bacteriological examination or analysis in all matters of a criminal nature whenever requested by the prosecuting attorney of the county in which the case may arise: Provided, however, that any prosecuting attorney requiring any analysis of a criminal nature, or any private individual, corporation or association requiring an analysis for private purposes, shall be required to pay to the state board of health, on the completion of the analysis, the nominal cost of the materials used and for the time necessarily spent in making such examination or analysis, which amounts shall constitute a charge against the particular county, private individual, corporation or association, and shall, together with all fees for expert testimony, be turned into the state treasury to the credit of the bacteriological fund, in addition to the amount herein provided, and may be drawn by the state board of health in the manner now provided by the accounting laws of this state for the purpose of maintaining or adding to the equipment of the bacteriological division of the department of health." It will be noted that the law specifies that certain examinations be made on request of the *various boards of health, health officers, state institutions, mayors of cities, presidents of villages or supervisors of townships.*

Realizing the importance often of very prompt service, and the fact that it is very inconvenient at times, particularly in townships, to locate the health officers or other person authorized to make application for laboratory service, we have tried to open the laboratory to the physicians direct. We furnish health officers with mailing outfits for sending samples of sputa and throat swabs, also platinum foils for sending specimens of blood for Widal's reaction. We cannot undertake to supply these in quantities to all physicians, but ask them to apply to their health officers for them.

Since opening the laboratory to the profession, the work has greatly increased and the services seem to be in a measure appreciated. We have quite a number of doctors, however, who do not seem to realize that this method is a special favor, done to facilitate their work. Some are so narrow-minded in their sense of appreciation that after they have sent specimens of sputa, throat swabs or blood and have been given this free service and positive reports of tuberculosis, diphtheria or typhoid fever have been sent them, they do not do the department even the courtesy of complying with the law by reporting their cases to the local health officer. We feel that after we have furnished a physician every facility for submitting a sputum or other specimen for examination, have made the examination free, and in many instances have taken the pains to telephone or telegraph him the diagnosis, he should without further urging, comply with the law promptly by reporting the case to the local health officer. Failure to do this can only be taken as evidence not only of carelessness about being law abiding, but as evidence of lack of sincerity in trying to advance the great principle of the profession, namely preventive medicine.

Of course, it can be, as it often is, answered that the physician sees that all preventive measures are established and no harm comes from his failure to announce to the health officer his case of diphtheria or typhoid fever. This is poor argument in as much as the physician is not the

health officer and his duties as physician are not supposed or required to include the duties designated by law for the health officer. Health officers, particularly those who are not physicians (I think every health officer should be a well-qualified physician), should and usually do appreciate the assistance rendered by the physicians, but they are entitled to at least official recognition.

We must insist, then, that if we are to continue accepting specimens from physicians, without requiring them to hunt up the health officer and asking him to submit the specimens as the law indicates, the reports must be made promptly. This certainly cannot be said to be an unfair exchange of courtesy.

The latter portion of the section of law cited above has to do with laboratory examinations for which we make charges. This is in no sense a commercial laboratory. We would much prefer not to make charge for any laboratory service. This is not at our option, however, for two very good reasons. In the first place, the law says those charges shall be made, and in the second place, if we did not charge for those services having no bearing on the public health, in as much as they are strictly individual propositions, we could not maintain the laboratory with our present appropriation.

The charges for special examinations of urine, stomach contents, tissues, etc., are nominal, with the idea of paying the laboratory for the time and materials used. As I say, we would prefer to do this work without charge, but could not afford to do so, even if the law permitted it.

We consider the laboratory as important as any other single factor in the diagnosis and prevention of disease and wish the physicians to take advantage of its existence primarily in the interest of public health, and secondarily in their own personal interest as often as occasion may indicate. We shall be glad for advice as to how to increase its efficiency or serviceability. We want you to feel that the laboratory is a part of your equipment, and for the accommodation it renders you, we only ask that specimens be submitted in good condition, the necessary information given, positive cases of contagious disease reported and the small charges made for special or private examination paid. If these propositions are unfair we shall be glad to be advised of the same.

If you are unable to secure mailing cases of your local health officer, ask him to make application to this department for a supply.

Book Notices

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES. By eminent American and British authors. Edited by William A. White, M.D., Superintendent of the Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases in the Georgetown University and in the George Washington University; Lecturer on Mental Diseases in the U. S. Army and U. S. Navy Medical School, Washington, D. C., and Smith Ely Jelliffe, A.M., M.D., Ph.D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post-Graduate Medical School and Hospital; Visiting Neurologist to the City Hospital; Consulting Neurologist to the Manhattan State Hospital, New York, N. Y. Two octavo volumes, containing about 900 pages each, illustrated. Per volume, cloth, $6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

When one realizes that insanity and idiocy are increasing in some states faster than the population, and that a very large percentage of the feeble-minded men and women are not properly cared for and procreate mentally deficient children, the great importance and timeliness of a work dealing with the problems involved in this situation become at once apparent. While these volumes go fully into the most modern medical phases of the issues under discussion, they devote a large amount of space to the broader question of prophylaxis, which is obviously the department where the greatest and most far-reaching results can be attained. This work marks a new departure in giving full consideration to such subjects as Eugenics and Heredity in Nervous and Mental Diseases, Education, Sexual Problems, Educational Treatment of the Feeble-Minded, Delinquency and Crime, Immigration and the Mixture of Races, and Alcoholism and Alcoholic Psychoses. It then takes up the treatment of the various forms of nervous and mental diseases, and discusses them conjointly, for the authors and editors regard the nervous system "as inclusive of the mind." It exhibits throughout the most modern point of view, and the most advanced methods for handling these cases. It is of prime interest, not only to all medical men, but also to hygienists, government, state and municipal officials, legislators, military men, social welfare workers, charity organizations, and all those who have to do with the betterment of these unfortunate classes.

THE OPERATING-ROOM AND THE PATIENT. By Russell S. Fowler, M.D., Chief Surgeon First Division, German Hospital, Brooklyn, New York. Third edition, rewritten and enlarged. Octavo volume of 611 pages with 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $3.50 net.

This book—which we believe should be owned, read and carefully followed by every interne, house surgeon and assistant—has just been revised so thoroughly that it has been increased in size by 325 pages and nearly 200 clear cut and definite illustrations. It has been brought up to date and may be rightly designated as a book that contains everything on modern surgical technic and the work of the operating-room.

The long experience of the author vouches for its reliability and accuracy. Every surgeon should see that this volume is in the hands of his surgical supervising nurse. It is an excellent book and deserves a large subscription.

When to Send for the Doctor. By Freda E. Lippert, M.D., Assistant at the Psychological Clinic, University of Pennsylvania, Philadelphia, and Arthur Holmes, M.D., Assistant Professor of Psychology, University of Pennsylvania, Philadelphia, Pa. 265 pages, and 16 full-page illustrations.

Fathers, mothers and teachers, in fact, everyone interested even remotely in children, will find in this volume instructive and valuable information.

The book is a compilation of the authors' experience, gained in general and clinical practice. It is arranged and worded so that any person without a technical knowledge can quickly gain the requisite knowledge concerning the common ills and habits, physical and mental, of children.

The simple, every-day, well-known ailments are catalogued and are followed with a description of the harmless indispositions and how to treat them. They are distinctly disassociated from the serious diseases demanding a doctor's services. The book tells when *not* to send for a doctor and *when* to send for him, as well as enlightening the reader what to do in emergencies before the doctor comes.

Any physician when asked, by a patient seeking this information, to recommend a book, may safely advise his purchasing this work.

Private Duty Nursing. By Katherine De Witt, R.N., Assistant Editor of the American Journal of Nursing. 242 pages, cloth. J. B. Lippincott Company, Philadelphia.

The author has written a book for private nurses. In it, the nurse just graduating from her training school will find much useful knowledge—knowledge that she can only secure through years of practice and which is not imparted to her during training. The author has rather successfully incorporated in this volume the important details that every nurse should be conversant with if she expects to be one who may enter a private home and at the end of her case have so conducted herself as to make the family want to call her should her services ever again be required.

It is not a scientific work; it is not a text-book. It is a book composed of valuable advice given by one of years of experience to one just entering the practice of her profession. It is a work that may well be given to every graduating nurse with the advice that the recipient study and practice its teachings. A physician may well purchase this book, read it and be greatly benefited by learning how to receive greater and better assistance from the nurses in his employ and who care for his patients. We congratulate the author and take pleasure in commending this book to our readers.

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume II, Number 2 (April, 1913). Octavo of 171 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, $8.00. Cloth, $12.00.

This second number of the second volume of this now established series of clinical reports verifies the comments made on the first number: "The second volume promises to be of more value and interest than the first." In this number the reader's interest is renewed by reason of Dr. Murphy's consideration of other surgical conditions than bone work. This volume is largely devoted to the surgery of the upper abdomen and covers cases of gastric ulcer, gall-bladder disease, pathologic duodenal and gastric conditions with Dr. Murphy's valuable summaries and methods of dealing with them. Of course, the Murphy button and its usage is not forgotten. In addition there are the reports and operation of spina bifida, fractured lumbar vertebrae, ureteral calculus and cerebellar tumor and periostial sarcoma. Mr. Robert Milne of London, a guest of Dr. Murphy, gives a very instructive talk on gastric ulcer and on fractures. An instructive number.

Tuberculin in Diagnosis and Treatment. By Francis Marion Pottenger, A.M., M.D., LL.D. Medical Director of the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, Cal. Octavo of 243 pages, with thirty-five illustrations. St. Louis. C. V. Mosby Company, 1913. Cloth.

This little book by Pottenger, who has long been recognized as an authority on everything pertaining to pulmonary tuberculosis, contains about everything worth knowing at the present time on the use of tuberculin in both diagnosis and treatment. The book also contains a large amount of information in general, concisely stated, on the diagnosis and treatment of pulmonary tuberculosis. Based as it is, on the treatment by tuberculin of over two thousand cases of tuberculosis, extending over a period of seventeen years and almost all being under close observation in a sanatorium, the author's conclusions carry more weight than the writings of most men on the subject. He is of the opinion that tuberculin is of great usefulness in the treatment of tuberculosis in all stages of the disease, but is also useful in differentiating active from inactive lesions. It is a book of great value not only to the specialist, but also to the general practitioner.

The Modern Hospital; Its Inspiration; Its Architecture; Its Equipment; Its Operation. By John A. Hornsby, M.D., Secretary Hospital Section, American Medical Association; Member American Hospital Association, etc., and Richard E. Schmidt, Architect, Fellow American Institute of Architects. Octavo volume of 644 pages with 207 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $7.00 net; half morocco, $8.50 net.

This new work is the first really thorough book on the modern hospital and covers its inspiration, architecture, equipment and administration. The illustrations have been especially selected for a definite purpose and they are truly illustrative and unusually instructive. It is a beautifully gotten up volume. Its value is inestimable. The requirements of modern medicine and surgery are such as to demand greater hospital facilities. Here and there all over the country the demand is felt and new hospitals are in the course of construction. A few years ago the majority of our hospitals were located in buildings that were primarily constructed for other purposes and had been remodelled later for use as a hospital. The very nature of their construction has developed the realization of their inadequacy, with the result that new and especially constructed buildings are to-day being erected. The demands made on the building and its equipment are such that it behooves those who are contemplating the erection of a new hospital building to devote a considerable time to the planning of the building if they

desire to secure the erection and equipment of a truly modern hospital. To such we would earnestly advocate the securing of this volume, for it contains a mint of valuable and practical information on every phase of the hospital question.

The work is of further value to every physician or surgeon having a hospital affiliation for it presents many labor-saving devices, practical appliances, equipment, systems and administration and nursing technic that are modern, and worthy of adoption in any institution. We admit our enthusiasm over the book, for we feel that it is going to supply a long-felt want and systematize hospital construction and administration—this has been neglected by our hospital officers and nursing associations. If you are connected with a hospital or your locality is contemplating the construction of a hospital, do not neglect securing the volume.

New and Nonofficial Remedies

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

ANTIGONOCOCCIC SERUM.—A highly immune polyvalent serum, prepared by immunizing horses against many strains of gonococci. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227).

ANTISTREPTOCOCCUS SERUM.—A polyvalent serum obtained by immunizing horses with increasing doses of streptococci extract and subsequently with live cultures. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227).

NORMAL HORSE-SERUM.—The serum of normal horse blood obtained in a sterile manner and passed through a Berkefeld filter. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour A. M. A.*, April 19, 1913, p. 1227).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

SYNTHETIC VERSUS NATURAL SODIUM SALICYLATE.—The Committee on Therapeutic Research of the Council on Pharmacy and Chemistry is investigating the claimed superiority of the "natural" over the "synthetic" sodium salicylate. Two reports have been published, namely, the critical review of the literature by Eggleston which showed that the evidence in favor of natural salicylates is very slight and that the evidence against the synthetic salicylate is even less, and the pharmacologic study by Waddell which showed that there is no difference in the physiologic action of the two kinds of sodium salicylate. Now the results of a chemical investigation made in the A. M. A. Chemical Laboratory are reported by W. S. Hilpert. An examination of eleven brands of sodium salicylate ranging from the cheapest synthetic sodium salicylate to the highest-priced "natural" kind showed that, except for some differences in the color of aqueous solutions, all the brands were essentially alike in properties and composition (*Jour. A. M. A.*, April 12, 1913, p. 1137).

COUDREY SENTENCED.—H. M. Coudrey, whose disguised acetanilid mixture, Labordine, was exposed by the Council on Pharmacy and Chemistry, has been found guilty in the federal courts of using the mails to defraud in the promotion of what were known as the Continental Assurance Company of America and the International Fire Assurance Company of America (*Jour. A. M. A.*, April 12, 1913, p. 1161).

ANTIKAMNIA.—In a booklet sent out by the Antikamnia Chemical Company both to the medical profession and to the public, a paragraph is quoted from an article by Dr. John H. McIntyre that appeared in *The Journal A. M. A.*, July 4, 1891. The reproduction of the McIntyre quotation is evidently adopted by the Antikamnia people as a means of "playing even" with *The Journal* for the unpleasant things which, in the past, it has said about Antikamnia. The Antikamnia Chemical Company carefully avoids giving the date when the article appeared (*Jour. A. M. A.*, April 12, 1913, p. 1172).

SAFE DIABETIC FOODS.—So far but one product—Casoid Flour, Thos. Leeming & Co., New York—has been found eligible for inclusion with New and Nonofficial Remedies. The Chemical Laboratories of the Association is at present examining several products of this kind and when the investigation is complete the results will be published (*Jour. A. M. A.*, April 12, 1913, p. 1172).

THE "CLINICAL REPORT" FALLACY.—An editorial in the *Journal of Cutaneous Diseases* entitled "Proprietary Remedies and the Dermatologist" closes with the following: "Hippocrates said 2,400 years ago, in words which Osler is fond of quoting, that 'Experience is fallacious and judgment difficult,' and it is an aphorism that one may well ponder when he is about to be carried away by clinical impressions in the estimation of the value of some new therapeutic agent. This country is sown with old indorsements of proprietary remedies based on clinical impressions that still come back to plague their authors. There is a proprietary vegetable alterative for syphilis of large sale, whose first credential is the testimonial given by one of America's greatest medical men on the basis of clinical impressions in the days of forty or fifty years ago, when 'alterative' was a conception to conjure with like 'radio-activity' is now. There is a lithia water for dissolving uric-acid stones to whose efficacy one of America's ablest and best physicians gave written testimony. If there is anything that the history of clinical therapeutics proves, it is that experience is fallacious and judgment difficult" (*Jour. A. M. A.*, April 19, 1913, p. 1243).

A MAIL-ORDER SCHOOL.—Walter C. Cunningham, who operated Marjorie Hamilton's Obesity Cure, has opened a correspondence mail-order school. As a result of his teaching three "graduates" offer a depilatory for sale through advertisements in a Chicago paper. Samples

of the three preparations—sold as Everett's Hair Foe, McNeal's Velvet Skin Depilatory and Our Velvit Skin Depilatory—when examined in the A. M. A. Chemical Laboratory were found to be alike and consisted of barium sulphid and starch (*Jour. A. M. A.*, April 19, 1913, p. 1243).

REXALL ORDERLIES.—Examined by the Kansas State Board of Health they were found to contain phenolphthalein as their essential constituent. The Rexall products are sold by the United Drug Company which consists chiefly of druggists who, not content with the profits derived from the sale of "patent medicines" started a cooperative organization for their manufacture and exploitation (*Jour. A. M. A.*, April 19, 1913, p. 1244).

ANTIMERISTEM-SCHMIDT. — Physicians should be warned that it is useless to send abroad for this serum at present. Under the government rule requiring a license before serums or allied products may be imported into this country, it will not be admitted because no license for its sale has been issued (*Jour. A. M. A.*, April 19, 1913, p. 1244).

STANDARDIZATION OF DISINFECTANTS.—Believing the general adoption of a standard method for the valuation of disinfectants important, the Council appointed a committee to consider the matter. On recommendation of the committee the Council adopted the Hygienic Laboratory phenol coefficient method. This method has some of the features of the Rideal-Walker method as well as of the Lancet method, but contains important modifications. The method is coming into quite general use and probably will replace the other methods for the standardization of disinfectants (*Jour. A. M. A.*, April 26, 1913, p. 1316).

FATHER JOHN'S MEDICINE.—When analyzed two years ago Father John's Medicine was found to be essentially a cod-liver oil emulsion. The term "Guaranteed under the Food and Drugs Act" on its label means only that the manufacturer has undertaken to protect the retailer in case the product is found to be adulterated or misbranded (*Jour. A. M. A.*, April 26, 1913, p. 1316).

LOPEZ.—Lopez is called by its exploiters, the Lopez Remedy Co., Wichita, Kan., "the great Hot Springs remedy." Although Lopez is claimed to be a specific for syphilis, the analysis indicated that it differed but little from the various "sarsaparilla compounds" put out by "patent medicine" fakers. Whatever benefit may be derived from it is due to the potassium iodid and the laxative drugs which it contains (*Jour. A. M. A.*, April 26, 1913, p. 1317).

LIQUID PETROLATUM IN CONSTIPATION. — Liquid petrolatum has been recommended in the treatment of constipation, but it has not received much attention. Its action is supposed to be that of a lubricant. Its use must be regarded as in the experimental stage (*Jour. A. M. A.*, April 26, 1913, p. 1320).

DR. EDWARDS' OLIVE TABLETS.—On the one hand these tablets are advertised—to the public—that they owe their value to olive oil; then again they are referred to as "olive oil colored." Both claims are untrue. Their color is vivid green and examination in the A. M. A. Chemical Laboratory showed them to be an aloes pill (*Jour. A. M. A.*, May 3, 1913, p. 1378).

PRESCRIBING PROPRIETARIES.—While the main objections to the prescribing of proprietaries are based on a consideration of the public health and of scientific medicine, there is also an economic objection to their employment. "If you prescribe Antikamnia, Cystogen or Purgen and your patient feels better or gets well," said an old druggist to a young practitioner, "the patient will be a walking advertisement for the respective proprietaries. If, on the other hand, you prescribe acetanilid, hexamethylenamin or phenolphthalein, in the form of a regular prescription, he will recommend the prescriber—you—to his best friends" (*Jour. A. M. A.*, May 3, 1913, p. 1378).

FRIEDMANN SELLS OUT.—Last November Friedrich Franz Friedmann read a paper before the Berlin Medical Society announcing that he had succeeded in producing a race of avirulent tubercle bacilli by which he claimed to be able to produce curative effects in all but the most advanced cases of tuberculosis, and to immunize children against the disease. While Friedmann might have had ample opportunity to test the value of his preparation in Germany, he preferred to come to this country—for the million dollars offered by a wealthy philanthropist. Now it is announced that a deal has been consummated through which he is to get a large sum of money immediately, with great prospects for the future. It is safe to conclude that he has realized the ideal he had in mind when he landed on our golden shores. According to newspaper reports branch "institutes" are to be established in every state by a syndicate, formed by Dr. Friedmann and his promoters. These institutes will make their own cultures and thus, by a technicality, will evade the federal law which places all serums and vaccines under the control of the Public Health Service (*Jour. A. M. A.*, May 3, 1913, pp. 1365 and 1367).

A GOOD PRINCIPLE.—*American Medicine* says editorially: "No physician has a right to employ any uncertain and possibly dangerous remedy in the treatment of disease in human beings until he knows all that anybody knows concerning its composition, character and action." And yet this journal advertises Phenalgin, Sanmetto, Bannerman's Consumption Cure, Campho-Phenique, Anasarcin, Sal Hepatica, Phenol-Sodique, etc., all of which are "uncertain and possibly dangerous" remedies (*Jour. A. M. A.*, May 3, 1913, p. 1368).

Miscellany

MEDICINE IN THE TWENTIETH CENTURY

The nineteenth century worked for the individual. One by one each disease was investigated and the results applied to the relief of the individual patient. The twentieth century starts out with a broader conception of the function of medicine. It is working for the masses in the prevention of disease. Care of the public health has become the most important duty of the state.—Mayo in *Boston Med. and Surg. Jour.*

THE INNOCENT FLY

When I was a boy, if a fly dropped into my gravy or got stuck into that good old Georgia molasses, I took a piece of bread or my finger and pushed him gently out of the way and went right on "soppin' ". I didn't even want to hurt the little fellow—just wanted him out of the way, and thought no more about it. Since I have been introduced to its mother and found out about its ancestors and that they carry on their feet

and legs and alimentary canals millions of the most deadly germs, I stop and wonder which "pile" he came from and how many sick people he has already visited.—A. Fleming, *Jour. of Med. Association of Georgia.*

A DIAGNOSTIC SIGN OF CHRONIC APPENDICITIS

Aaron of Detroit states in the Journal of the A. M. A. that: I find that continuous firm pressure with the ends of the first three fingers over McBurney's point induced a referred distress or pain in the epigastrium or precordial region. . . . I have found this test exceedingly valuable in deciding when and when not to recommend operation for chronic appendicitis. . . . The referred distress or pain induced by continuous pressure over McBurney's point seems to me to be a most valuable sign in arriving at the diagnosis of chronic appendicitis.

DR. OSLER'S CHALLENGE TO THE ANTI-VACCINATIONISTS

"A great deal of literature has been distributed casting discredit upon the value of vaccination in the prevention of small-pox. I do not see how any one who has gone through epidemics as I have, or who is familiar with the history of the subject, and who has any capacity left for clear judgment, can doubt its value. Some months ago I was twitted by the editor of the Journal of the Anti-Vaccination League for 'a curious silence' on this subject. I would like to issue a Mount Carmel-like challenge to any ten unvaccinated priests of Baal. I will go into the next severe epidemic with ten selected, vaccinated persons and ten selected unvaccinated persons—I should prefer to choose the latter—three members of parliament, three anti-vaccination doctors, if they could be found, and four anti-vaccination propagandists. And I will make this promise—neither to jeer nor jibe when they catch the disease, but to look after them as brothers, and for the four or five who are certain to die I will try to arrange the funerals with all the pomp and ceremony of an anti-vaccination demonstration."—*American Magazine.*

STATE LICENSE INADEQUATE

State licensing of physicians to practice after some test of their qualifications has proved a failure in checking irregular practice. Motives not altogether disinterested have probably to some extent promoted the enactment of this legislation, such as the desire of sects to obtain the prestige of legal recognition, the limitation of competition, and the craze for legislation now prevalent. Under the medical-practice laws worthy practitioners are put to much trouble on removing into a new jurisdiction; but fakers, quacks and irregulars thrive unchecked and new medical cults arise and flourish without the slightest hindrance. It is easy enough to license physicians, but in the present state of public opinion it is impossible to suppress practice by unlicensed individuals. Our opponents are sufficiently shrewd and influential to see to it that the legislative definitions of the practice of medicine are too elastic to hold in court. The only great benefit that has been obtained from our practice acts has been that, indirectly, they have been influential in raising the standards of medical education.—"Medical Sectarianism," Nichols, *Journal A. M. A.*

In the treatment of shock cease all painful manipulations. Use novocain locally to block all sensory impulses, if possible.—J. C. Bloodgood, *Progressive Medicine*, December, 1912.

Children of 7 years and upward may be given 0.3 gm. salvarsan and 0.5 gm. neosalvarsan, and the same proportion to the adult dosage followed with respect to the total amount.—Chetwood, *Practice of Urology*, p. 794.

Discussing ulcers of the rectum in Keen's *Surgery* (Vol. VI, p. 626), Robert Abbe of New York remarks that "in the treatment of the syphilitic lesions, salvarsan seems to offer wonderful results. In cases that have resisted mercurial treatment it certainly should be used. Its primary use (after diagnosis by the Wassermann reaction) is widely advocated."

Chetwood of the New York Polyclinic Hospital, in his work on *Urology*, says: "The use of salvarsan in urogenital syphilis has been followed by brilliant results and no doubt the introduction of this treatment will in many instances revolutionize the methods adopted and take the place of the older remedies to a considerable degree. It has been found that syphilitic children bear the treatment very well, in spite of the earlier expectations to the contrary."

Dr. A. D. Bevan, in a discussion of Dr. C. H. Frazier's paper on "Exposure of Structures at the Base of the Skull" before the Mississippi Valley Medical Association, Oct. 22, 1912, said: "Novocain has the advantage that it can be sterilized by repeated boiling without interfering with the strength of the solution. One can infiltrate the neck with an ounce of one-half per cent. novocain with great freedom from danger and in an ordinary case a much smaller amount than this is quite sufficient."

Discussing the use of neosalvarsan, C. H. Chetwood of the New York Polyclinic Medical School says "It is important to distinguish, if possible, between the reaction from the medication and the increased activity of the invading parasites of the disease. In one instance increased dosage and renewed attack are demanded, in the other are interruptions of the treatment until the irritating influence of the chemical agent on the system has subsided." In ordinary cases Chetwood advises repetition of small doses every few days or full dose eveery week "until an aggregate of from 2.5 to 4 gm. have been employed in a period of from three to six weeks."

T. Turner Thomas of the University of Pennsylvania in discussing "Local Anesthesia for Operations in the Trigeminus Region" (Keen's *Surgery*, Vol. VI, p. 416), says: "The anesthetization of large nerve trunks by perineural injection of cocain solution was only possible or at least only practicable on parts of the body on which the Esmarch constriction has made the method applicable to other parts of the body. The substitution of novocain for cocain permits the employment, without danger, of a much larger quantity of the anesthetic in the neighborhood of a nerve trunk or to interrupt the conduction of a nerve for a much longer time."

The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, JULY, 1913 No. 7

Original Articles

SOME EXPERIENCES IN THE SURGICAL TREATMENT OF ULCERS AND CARCINOMA OF THE INTESTINAL TRACT

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In this brief paper, it is the intention of the writer to refer to some aspects of the surgery of ulcers and carcinomata of the stomach and of the intestinal tract; needless to say a systematic presentation of the subject will not be attempted; only a few points will be discussed and personal experience with the lesions in question will be the basis of the remarks.

ULCERS OF THE STOMACH AND DUODENUM

In common with numerous other observers, I find that the diagnosis of these ulcers is difficult; the symptoms and physical signs that we are told are diagnostic are not always present. For instance, in at least one-half if not more of the cases of gastric ulcer demonstrated by operation, hyperacidity was not present. The character of the pain and the time of its occurrence were quite variable; in two cases of pyloric ulcer, the patients complained of almost constant pain, which was not influenced by eating. On several occasions I have seen the typical "hunger-pain" of duodenal ulcer caused by lesions of the appendix. In one instance a young male adult had apparently all the symptoms of a duodenal ulcer, including the "hunger-pain"; at the operation an ulcer of the transverse colon was found; adhesions existed between the colon and the duodenum; resection of a portion of the colon and end-to-end anastomosis resulted in relief of the symptoms.

HEMORRHAGE FROM THE STOMACH AND DUODENUM

Having operated on three occasions for hematemesis and blood in the stools, supposed to have come from gastric or duodenal ulcers and not finding any ulcers, I have come to the conclusion that in future I shall refrain from doing so in cases of single attacks of bleeding from the stomach or bowel. As is well known, this hemorrhage ceases spontaneously in 90 to 95 per cent. of the cases, and it is only when the attacks occur frequently that one is justified in operating. Small, non-indurated mucous ulcers and erosions, cirrhosis of the liver, Banti's disease, etc., may be the cause of such single hemorrhages, and operative interference is useless.

PERFORATION OF ULCERS

In the majority of cases, the typical evidences of perforation enable one to recognize the condition, particularly if the patient has been under observation before or if the history points to ulcer. In two instances, however, perforation was the first evidence of the presence of an ulcer, the patients positively denying any symptoms of gastric disturbance; such cases are classed as latent ulcers and undoubtedly exist. In one instance in which we felt certain of a perforated gastric ulcer, the symptoms and signs being apparently characteristic, nothing abnormal was found at operation and in twenty-four hours a lobar pneumonia could be demonstrated; careful examination of the chest prior to operation failed to reveal any thoracic disease. With medical colleagues I have seen several instances of so-called subacute perforation of gastric ulcers; here the evidences of peritoneal involvement were slight; nothing was done surgically and the patients recovered.

Unless an ulcer is found at operation, and if there is no pyloric stenosis as the result of the healing of a former ulcer, gastro-enterostomy should not be done; all writers agree on this point. Some years ago many useless and harm-

ful gastro-enterostomies were done in cases in which we now know the operation should not be performed, as, for example, in gastric atony. Excision of gastric ulcers is, I believe, a wise proceeding. In two instances I have had to resort to partial gastrectomy for pyloric ulcers, for which a gastro-enterostomy had previously been done; the necessity for so doing arose from recurrence of the symptoms, particularly hemorrhage. (The term "pyloric ulcers" is used to designate ulcers in the region of the pylorus, which are perhaps partly gastric and partly duodenal, for it is not always possible to clearly differentiate gastric from duodenal ulcers.)

Duodenal ulcers should always be sewed over, if possible, and the pylorus narrowed or closed, in addition to performing gastro-enterostomy. In one instance an ulcer on the lesser curvature of the stomach was treated by simply turning it in and sewing it over; the patient was not improved; of course, a gastro-enterostomy should also have been done.

In my experience, gastro-enterostomy for cicatricial pyloric stenosis has uniformly yielded the most gratifying results, the patients all recovering and being completely restored to health.

The "posterior, no-loop gastro-enterostomy" is the form of operation which, in common with most writers, I prefer: it is not necessary to place the duodenum so that there will be isoperistalsis. indeed it is not desirable to do so, for the normal course of the beginning of the jejunum is from right to left, and experience has abundantly shown that there is no need of paying any attention to the direction of the peristalsis.

I have had one case of peptic ulcer of the jejunum, following anterior gastro-enterostomy with the Murphy button; the ulcer perforated and death resulted.

There was one death from gastric hemorrhage after excision of a large saddle-shaped ulcer of the lesser curvature and gastro-enterostomy; the patient did quite well for nine days and then had several severe hemorrhages from the stomach which resulted fatally on the tenth day. I have also had a death from perforation of a gastric ulcer after gastro-enterostomy; at the autopsy there were found multiple small ulcers.

The chief benefit of gastro-enterostomy for gastric and duodenal ulcers is to be sought in the diminution of the gastric acidity and not in better drainage.

CARCINOMA OF STOMACH

In the diagnosis of this grave condition an effort has been made to utilize all the clinical and laboratory tests that are available; however, in the majority of cases the diagnosis was comparatively easy, for the patients did not present themselves or were not referred for operation till the characteristic evidence in the shape of vomiting, loss of weight, stenosis of the pylorus, etc., indicated only too plainly the presence of carcinoma.

With regard to the presence of tumor, my experience has been in accord with that of others, in that the size of the tumor is no index of its operability, for a large mass may at times be quite readily removed; two patients in whom the growth was from 2 to 4 inches in diameter have lived two years after partial gastrectomy. Nor can one always judge of the operability of the case from the mobility of the growth, for cases in which the growth was small and freely movable may have extensive metastasis.

Occasionally the presence of hard button-like masses in the umbilicus has aided in the diagnosis, as has also carcinomatous infiltration felt through the anterior wall of the rectum.

In several instances any operation on the stomach would have been impossible, owing to extensive and diffuse carcinomatous infiltration of practically the entire stomach wall.

In several cases, operated on from 8 to 10 years ago, that were regarded as unsuitable for partial gastrectomy, owing to the size of the mass and the adhesions to adjacent structures, gastro-enterostomy has been followed by permanent relief, showing, of course, that carcinoma never really existed and that the mass was the inflammatory thickening around an old ulcer.

In two cases I have seen perforation of a carcinomatous ulcer, followed by death from peritonitis.

I have seen the retroperitoneal metastatic masses, secondary to malignant disease of the testicle, mistaken for carcinoma of the stomach.

Chemical examinations of the stomach contents has not been of much aid to us in the diagnosis of gastric cancer; the results of such examinations are too variable and uncertain. Achylia gastrica, with progressively increasing anemia and loss of weight speaks very strongly for carcinoma. Considerable reliance can be placed on the results of microscopic examination.

When there are good grounds for suspecting the presence of a carcinoma of the stomach an exploratory incision is quite justifiable.

The immediate mortality of partial gastrectomy has been five in twenty-five operations, and while I can not point to any permanent cures, one patient lived five years, two lived over two years and three are alive after about one and one-half years. All the patients that survived the

operation were rendered quite comfortable for a varying period of time and life was undoubtedly prolonged.

Palliative gastro-enterostomy does not yield nearly as satisfactory results as partial gastrectomy; for while the patients may improve for a time, the continued growth of the tumor, the reappearance of obstruction in some cases and the advancing cachexia, all conspire to render the procedure an undesirable one when gastrectomy is at all feasible. The mode of death in patients who have survived partial gastrectomy is usually less distressing than it is in those who have not been operated on at all or who have had merely a gastro-enterostomy done.

The mode of operating has been, in brief, to remove the pyloric portion of the stomach, including always the larger part of the lesser curvature, closure of the duodenum and of the cardiac portion of the stomach and posterior gastro-enterostomy ("Billroth No. 2").

CARCINOMA OF THE INTESTINES

As is well known, carcinoma of the intestines nearly always involves the large bowel, the small intestine is very rarely affected, for reasons that we do not know. Among my cases there was not one in which the small intestine was involved, whereas more than fifty were subjected to operation for carcinoma of the large intestine.

It occurs at the same time of life that carcinomatous disease elsewhere is most common, i. e., between 40 and 60 years of age, though I have had occasion to resect the sigmoid for cancer in a patient aged 21 years, and have seen cancer of the descending colon at 24.

There are three groups of symptoms which point to this affection, namely, those associated with stenosis, in its varying degrees, inflammation of the mucosa, and ulceration with the accompanying discharges. The physical signs which go with the affection will be taken up later.

STENOSIS

Among the earliest evidences of stenosis of the bowel is the pain. This may manifest itself as attacks of colic, which appear at times without apparent cause and at times are the result of errors in diet.

Borborygmi are important symptoms, indicating as they do a narrowing of the gut and increased peristaltic activity on the proximal side of the narrowing; they frequently occur long before visible peristalsis exists. Frequently the pain is localized and the patient can point out the seat of obstruction; the pain usually immediately precedes an evacuation of the bowels or corresponds with that act, or is accompanied with tenesmus. The pain may, however, radiate or be referred, for instance, to the anal region; more often perhaps it is periumbilical or diffuse. It may radiate into the testicle.

There is an important group of cases in which the pressure of the tumor causes pain in the sciatic nerve and the careful physician always examines the rectum in cases of sciatica. As one would expect, the escape of fecal matter and gas usually affords prompt relief in these colicky attacks.

In some cases, certain positions of the body produce or aggravate the pain. It has been noted that colicky attacks have a tendency to occur oftenest at night; this fact has also been noted in colics of other tubular structures such as the bile ducts and the uterus.

Metastasis to certain organs may give rise to continuous pain; for example, I recall a case in which metastasis to the liver—in a case of rectal cancer—caused pain beneath the right costal margin; the secondary growth could not be felt till the abdomen was opened, though it was suspected; and furthermore, the presence of this hepatic pain led me to make an abdominal incision prior to removing the rectum. When a tumor is present in the intestine it is usually painful on handling.

The stenosis leads to progressive diminution of the lumen of the bowel and obstinate constipation, distention of the abdomen, circumscribed peristalsis and later vomiting appears.

In a middle-aged or elderly individual who has been having gradually increasing constipation or perhaps diarrhea alternating with constipation, perhaps an occasional passage of bloody mucus, and who comes under observation when he has complete mechanical obstruction of the bowels, we will nearly always be right if we make a diagnosis of carcinoma of the lower part of the large intestine (oftenest the sigmoid) and that carcinoma will nearly always be of the annular kind, a narrow constricting band of cancer, not palpable because the mass is quite small.

A patient may get over several attacks of apparently complete obstruction before an operation becomes imperative, as I have repeatedly seen. The character of the stools is not distinctive, for neither narrow, tape-like stools, nor small spherical masses of feces, bear any relation to cancer of the bowel. In rectal growths, of course, blod and mucus are apt to occur in the feces at the time ulceration begins and dysentery may be simulated.

Of other organs in the abdomen that may be influenced by cancer of the large intestine, the bladder may be mentioned; pressure on this viscus and fistulous communication may lead to frequent urination, tenesmus and escape of gas and feces from the urethra. In my experience bladder complications have been very rare.

Metastasis to other organs is rare, if we except the liver, in cases of rectal cancer. The infrequency of organ metastasis and the good surgical accessibility of cancer of the large intestine, in many cases at least, are among the reasons for the importance of an early diagnosis. If that is made, surgery holds out a fair prospect of cure, or at least relief.

I have been struck with the intermittent or remittant character of the symptoms in a number of cases, that is to say, a period of partial obstruction will be followed by days during which there are fecal evacuations like those of dysentery, and then there will be a period of normal bowel movements; weight which has been lost may be partly regained and so the symptoms may for a while alternate. In another group of cases, the evidences of stenosis are continuous and gradually progressive in severity. I have known patients of this kind to be treated for spastic constipation.

In still another group of cases the first evidence of the disease is an acute mechanical obstruction of the bowels.

PHYSICAL EXAMINATION

The simplest mode of investigation for the purpose of ascertaining the existence of carcinoma of the large intestine is, of course, a digital examination of the rectum. In common with other surgeons I have to comment on the frequency with which this is neglected, and the patient perhaps treated for piles or constipation when a digital examination would have cleared up the case and given surgery an opportunity to obtain a better result. Not only may rectal cancer be thus found, but growths 14 inches from the anus may be felt through the rectal walls. The sigmoid flexure is movable and varying degrees of abdominal distention may, along with this mobility, change the position of the growth, so that repeated rectal examinations are advisable. It will at times be noted that the rectal ampulla is enlarged, that so-called "ballooning" of the rectum exists; this is suspicious of a high rectal or a low sigmoid carcinoma.

In the examination of the abdomen we look for circumscribed intestinal dilatation and peristalsis, note irregularities in the abdominal contours, etc.

In palpating the abdomen it is particularly the four corners of the abdomen, namely, the right and left hypochondria, and the right and left iliac regions that we examine, for here carcinoma is most common. In the right iliac fossa we may mistake an ileocecal tuberculosis, or a chronic appendicitis for a cancer of the sigmoid. There are cases of subacute appendicitis with large exudates that may suggest malignant disease. However, it is more likely that a cancer of the bowel will be called appendicitis. In an elderly individual having a mass in the right iliac fossa, with or without fever, we have to try to differentiate between appendicitis, ileocecal tuberculosis and malignant disease. In carcinoma the mass is apt to be more circumscribed and movable than in appendicitis.

In one case I removed a sarcoma of the cecum; this diagnosis had, of course, not been made.

When the mass is in the region of the ascending or descending colon renal enlargements must be differentiated; I once diagnosed a carcinoma of the descending colon and found at operation a retrocolic cyst about the size of a small baseball; in another case, after diagnosing carcinoma of the descending colon, I found an inflammatory tumor of the great omentum, which compressed the colon and gave rise to partial obstruction. Inflammatory tumors of the large intestine itself may give rise to all the signs and symptoms of carcinoma, and one can not differentiate them even when they are exposed. In one case I removed about 14 inches of the rectum and sigmoid for what I regarded as a carcinoma, and subsequently learned from the pathologist that the mass was inflammatory in origin. In another case it seemed that a carcinoma involved the sigmoid and left uterine appendage; removal was impossible and I established an artificial anus; the subsequent clinical history and the pathologic report on a small piece of the mass which had been removed showed the growth to be inflammatory in character. Cases in which an exploratory operation has been done, an apparently inoperable cancer found and the wound closed—the patient subsequently recovering and remaining well—are every now and then met with and are to be explained by the inflammatory character of the supposed neoplasm. Syphilis of the intestine may also simulate cancer.

A mass in the hepatic flexure of the colon may resemble an enlarged gall-bladder or some hepatic lesion. When the splenic flexure is involved, the mass, unless quite large, is hard to feel, owing to its being covered by the lower ribs; it may sometimes be rendered more accessible by rolling the patient over to the right.

Resection of a portion of the large intestine for neoplasm, in the presence of acute obstruction, is usually inadvisable; the obstruction should be temporarily relieved and later on a resection can be made. One can not insist too strongly on the importance of washing out the stomach prior to operation for obstruction with vomiting; neglect of this precaution in one of my cases resulted in the death of the patient, owing to the entrance of the fecal matter into the bronchial passages. Great care is necessary in handling the distended bowel, for it is an easy matter to cause laceration and perforation of the wall.

In cases of carcinoma of the cecum I have followed the plan of removing the cecum, a large part of the ascending colon and 4 or 5 inches of the ileum, together with the lymph glands into which these parts drain; the divided ends of the intestines are then closed and a lateral anastomosis is made between the lower ileum and the transverse colon. The parts of the large intestine that are not entirely surrounded by peritoneum do not lend themselves readily to end-to-end anastomosis.

Carcinoma of the splenic flexure I have found is often difficult to treat by resection, as this part of the gut is high up under the ribs and is difficult to free thoroughly. In four cases a short-circuiting operation was done, i. e., the lower ileum was anastomosed with the sigmoid flexure; one of the patients lived in comparative comfort for thirteen months; in two others the accumulation of gas in the cecum and ascending and transverse colons caused much discomfort during the few months that the patients survived the operation; the fourth patient is only just recovering from the operation.

Carcinoma of the rectum has usually been treated by removal through the perineum. I have removed as much as 14 inches of the rectum and sigmoid by the perineal operation alone. Resection of the sacrum has been given up, though the coccyx is usually removed; in none of my cases, unfortunately, has there been satisfactory sphincteric control after the operation, though perhaps the majority are not troubled much with incontinence unless diarrhea exists. One advantage of the combined perineal and abdominal operation is the ability of the surgeon to determine the presence of secondary deposits in the liver; when these are found, of course, extirpation of the rectum should not be done. In two cases a very satisfactory result was obtained by first making an iliac colostomy and then removing the rectum and closing the lower end of the sigmoid.

Fully one-half of the cases of carcinoma of the rectum that came under my observation were too far advanced for a radical operation; when obstruction existed, of course, an artificial anus was made and there is no question that this procedure has frequently prolonged the patient's life.

In only three out of twenty-five cases of removal of the rectum have the patients lived more than three years.

HYPERTHYROIDISM, ITS MEDICAL AND SURGICAL TREATMENT *

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The economic importance of this disease is great in our state of Michigan, where cases may be found in every community.

CAUSES

Rudinger, Falta and Eppinger believe that Graves' disease is the result of combined hypersecretion and nerve irritation, acting simultaneously and independently. In addition, the internal secretion of at least the adrenals, the thymus, the hypophysis and the sexual glands must also be considered as etiological factors. So that it would seem that in the thyroid gland there is found the final reaction of nervous internal secretory and local (thyroid) processes.[1] All observers have noted the disastrous effects of excitement from external causes to hyperthyroid patients; also the good effect of freedom from worry and restful quiet.

The generally accepted symptoms of hyperthyroidism are, fine nervous tremor, tachycardia, exophthalmus, enlargement of gland. In addition, other associated symptoms, constant or inconstant, are seen, such as diarrheas, sometimes of fatal character, increased secretion of sweat, vasomotor disturbances, flushing, edema, pigmentation, emaciation and muscular weakness, and enlargement of the spleen. It is to be borne in mind that any one of the characteristic symptoms of the disease may be absent; further, that other varieties of goiter and cysts and tumors of the thyroid gland may be associated with the symptoms of hyperthyroidism, having existed many years previous to the onset of hyperactivity of the gland.[2] Mental derangements are often encountered in these cases, and are of periodical character, in which hallucinations are entertained

* Read before the Calhoun County Medical Society, May 6, 1913.

1. Forcheimer.
2. A. B. Johnston.

quiet constantly with excitable mania occurring at intervals; these symptoms occur only in extreme cases. Hysteria is quite common.

Schlesinger of Berlin has noted cases in which 20 pounds weight was lost in one month and one patient lost two-thirds of his weight in eleven weeks. These were cases in which food was mechanically restricted; but instances of rapid and great loss of weight occur in gastric crisis, as noted in Case 4.

Splenic enlargement is an early symptom. The temperature is often found two or three degrees above normal in acute cases, and one-half or one and one-half degrees above normal in chronic cases.

Even in those cases in which the gland appears rather smaller than normal a vascular bruit can be heard over the gland. This bruit is soft but unmistakable, with rhythmical systolic accentuations.

In the early stages, exophthalmus may not be perceptible, though it sometimes develops very soon after the first symptoms appear. Leucopenia with relative lymphocytosis is always present in both acute and chronic cases.

An acute case presenting no perceptible enlargement of the thyroid gland, if associated with fever and enlargement of the spleen, may easily be mistaken for typhoid fever until special tests for typhoid have been made. The condition may resemble typhoid still more closely if a gastro-intestinal disturbance is present. Intense icterus may occur; also glycosuria, though the presence of these associated symptoms has not been explained; in fact, the exact function of the thyroid has not been fully explained.

Much has been written of the physiology and pathology of the thyroid, but our present knowledge of this gland—so essential to our existence—is well expressed by Wm. Carpenter McCarthy, Pathologist of the Mayo Clinics, in these words: "Very little is known about the etiology, or indeed, the physiology of the gland itself."

Our treatment of hyperthyroidism has been and must be largely empirical until more is learned of the physiology of the gland.

Crile has demonstrated the destructive effects of hyperthyroidism on the heart muscle, producing dilatation; on the liver, fatty degeneration; on the brain-cells, destruction of the brain-cells which can never be repaired or replaced.

Many cases recover with medical treatment. Some cases have been known to recover without treatment of any kind; and others in spite of treatment generally believed to be very bad.

We have learned enough regarding the pathology of exophthalmic goiter to understand how nature endeavors to correct the hyperthyroidism by colloid formation; and, in case the patient survives through the long period of time required by nature to effect the change, which is many years, the condition is sometimes changed from hyper- to hyposecretion, and overcorrection of the trouble causing myxedema.

TREATMENT

Treatment is most simply classified as non-surgical and surgical. Non-surgical treatment includes rest, warm salt-bath, massage of body (not the gland), soothing currents of electricity, application of x-ray (although Von Eiselsberg calls attention to the fact that the x-ray increases connective-tissue formation about the gland and thus renders operation much more difficult), an easy digested, nutritious diet (meat excluded and alcohol and tobacco interdicted), application of ice over the gland, optimistic suggestions, pituitrin (1 c.c., two or three times daily, hypodermatically) with small doses of pilocarpin until marked improvement in heart action occurs; then hydrobromid of quinin (gr. 5) and ergotin) gr. 1) four times daily (Forcheimer). The value of serums has not been proven. Thyroid and thymus extracts usually aggravate symptoms.

The permanent benefit of non-operative treatment is found in a large percentage of mild cases, some claiming as high as 90 per cent., when treatment is begun early.

Any case that does not improve under non-operative treatment and does not continue to improve until all symptoms have disappeared, should be operated; as also cases showing symptoms of compression, patients who continue to lose weight, when fever persists, when tachycardia cannot be controlled, or when the disease renders the patient unfit to pursue his vocation. It is very wrong to encourage a patient to employ non-operative treatment until organic heart-changes, or fatty degeneration of the liver or destruction of brain-cells has taken place. Very bad general condition of the patient—or a pulse rate of 130 to 150—contraindicates radical operative procedure, until improvement occurs. In such cases that do not improve, ligation of the upper poles of the gland under novocain may be done, which usually produces marked improvement very promptly; or injection of boiling water as suggested by Porter may be employed.

Operative treatment is successful in fully-developed thyroidism and the improvement is permanent in 76 to 95 per cent. of cases.

Kocher says: "In our present-day knowledge of surgery of the thyroid, there may be no mortality from operation." In the author's list of thirty-one operations, there has been no mortality or post-operative complications, or recurrences in the twenty-two heard from. The curative effects of simple ligation are sometimes permanent; but the majority of ligations must be followed by removal of part of the gland.

Frequently the improvement of symptoms after ligation ceases in four to eight weeks, and the surgeon is aware that unless a part of the gland is removed the patient will relapse into his former distressing condition and probably become inoperable if long delayed.

The confidence of the patient in the surgeon is very important. If the patient should become panicky or hysterical immediately before operation, the operation should be postponed until the patient is calm and hopeful.

Crile has given us many valuable suggestions concerning the management of these patients previous to operation, such as minimizing the dangers when conversing with the patient, starting the anesthetic several times before operation and not telling the patient exactly when the operation would be done, also blocking the nerves to the field of operation with a local anesthetic to prevent impressions of pain reaching the brain and thus lessening shock.

It is desirable that the patient be in the best possible general condition at the time of operation.

TECHNIC OF OPERATION

Iodin sterilization of skin is employed, and after operation the skin is bathed with alcohol.

I prefer the transverse collar incision through skin, fascia and platysma, after which the sternohyoid and thyroid muscles are separated by blunt dissection and held apart by retractors, which usually gives ample exposure.

I have never found it necessary to cut the muscles. The lateral veins are first ligated, over a Kocher dissector, close to the capsule and cut between ligatures. The stumps of these vessels, together with the surrounding fascia, are grasped with forceps and traction made inward and upward and the lateral and posterior surface of gland freed to the capsule by gauze dissection, all vessels being cut between ligatures over the Kocher dissector. The superior vessels are now secured in the same manner and the inferior vessels treated likewise. The isthmus is divided between clamps and the posterior capsule dissected free from the gland and allowed to remain, covering the recurrent laryngeal nerve. In case cysts are found in the remaining lobe they are dissected out, leaving the gland tissue, and the cavity sutured with lock-stitch to prevent hemorrhage. The gland is not squeezed and is manipulated as little as possible. The stump of the isthmus on the remaining lobe is cauterized and sutured. The cavity is carefully packed with iodoform gauze, the end of which is placed through a spirally-cut rubber tube, which is placed in a stab-wound in the suprasternal notch. The thyroid and sternohyoid muscles are brought together by two or three interrupted sutures and the platysma and subcutaneous fascia carefully sutured in place to prevent stretching of the scar and the edges of the skin approximated with the Michel clips. An ample quantity of sterile gauze is applied, which is changed every eight hours, while active drainage occurs. Pituitrin is administered for forty-eight hours. Liquids are allowed *ad libitum*, and solid food as soon as patient can swallow comfortably. The patient is allowed any position desired and encouraged to sit in a chair in twenty-four to forty-eight hours after operation.

CASE REPORTS

The following case reports are selected as typical of the most common conditions found:

CASE 1.—Mrs. H., aged 44. Hairdresser. Native of England, mother of two children, both living. Total hysterectomy at 34, for malignant growth of cervix. Goiter developed at 15. Symptoms of hyperthyroidism developed at 27, after birth of second child, with exacerbations and remissions until operation, Nov. 6, 1900. Dilatation of heart marked. Recovery uneventful, but improvement of symptoms was slow. Normal health was not restored until five months after operation.

CASE 2.—Mrs. R., age 24, married three years, mother of two normal children. Thyroid slightly enlarged since 14 years of age. No symptoms of hyperthyroidism until four months after birth of first child, 1908. Symptoms developed gradually; nervousness, tremor, tachycardia, weakness and sweating; with development of second pregnancy, March, 1909, symptoms of hyperthyroidism disappeared until one month after birth of child, Nov. 8, 1909, when exophthalmus developed, and the previous hyperthyroid symptoms became very distressing. Patient lost weight rapidly and became very weak. Operation March 30, 1910. Right lobe and isthmus removed, uneventful recovery, with prompt disappearance of all symptoms, and rapid gain in weight.

CASE 3.—Miss H., age 21, student. Personal and family history unimportant. No members of family have goiter. Enlargement of gland first noticed at 15, at which time menstruation first appeared. Symptoms of hyperthyroidism first

noticed at 18, with exacerbations and remissions (which continued three years). Depressive melancholia developed. Exophthalmus marked. Tachycardia with pulse 130. Operation Aug. 26, 1911, right lobe removed. Left hospital third day. Prompt recovery and subsidence of all symptoms.

CASE 4.—Mr. P. Cabinetmaker, age 28. Native of Sweden—six years in America. Personal and family history unimportant. Slight enlargement of thyroid first noted October, 1911. Began medical treatment May, 1912, at which time fine nervous tremor was noted. Patient noticed nervous symptoms in April, 1912, about one month before beginning treatment. During latter part of May had an attack of gastric crisis and lost 35 pounds in one week. Patient's normal weight had been 175 pounds until symptoms became worse and mania developed, lasting ten days, and weight fell to 110 pounds, during December, 1912, and January, 1913. Tachycardia appeared with first symptoms, and profuse sweating occurred. Extreme weakness developed about this time. Patient continued in state of extreme excitement, but because of slight remission of symptoms and financial necessity he worked in factory five and six hours daily for two weeks in March, and then suffered recurrence of all symptoms (which he attributed to taking "cold"). At request of family physician, patient consulted author April 24, 1913. Complete rest, ice to neck, pilocarpin and pituitrin reduced pulse from 150 to 100, with one week's treatment, and markedly improved patient's general condition.

Enucleation of right lobe of thyroid April 2, 1913. Marked improvement of all symptoms were noticed in twenty-four hours. Improvement continued uninterrupted and patient left hospital four days after operation so much improved that he declared himself perfectly well. Temperature 98, pulse 70, respiration 18 per minute, incision nicely healed.

Drainage tube removed fourth day, but some drainage occurred for three weeks. Patient has gained 25 pounds in about four weeks since operation, and is working.

THE LIABILITIES OF THE PHYSICIAN AND SURGEON TO THE PUBLIC *

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This subject, which is of such great importance to us all and yet so little discussed, I wish to bring before you for the purpose of bringing out a discussion on the various points as a matter of benefit to us as physicians. I cannot deal with the subject to the extent that its importance demands, but will only try to bring out the important points as food for further study.

We do not, as a rule, realize how often we make ourselves liable, according to law, in the performance of our daily duties to the sick. We are at all times doing the best that we can according to our intelligence, the means at hand, the willingness of the patient and as their surroundings will permit. The law makes no allowance for lack of knowledge, nor for neglect of duty as viewed according to popular idea. Our intent does not in the least extenuate us, but our results hold us, according to law — mere inference will not suffice.

Our position in regard to the public is a very grave one, if we but recognize our responsibility. We are liable for errors of omission as well as for those of commission, and yet the latter are more apt to be looked on by the public as our greatest errors. Our duties to the public are not all legal, by any means; our moral duty to our patients is of the greatest importance, but I wish to deal largely with the legal phase of the subject in this article.

We are looked on, and rightly, as a body of health-preserving individuals, as well as those who administer relief from illness and pain. We therefore bear a definite liability to our city and our country to do all that we can to preserve the health of the community in which we reside; however, we are not held legally responsible for epidemics unless it can be proven that we are the source or carriers of contagion.

Liabilities may be civil or criminal. Malpractice may be civil or criminal. It may be wilful, negligent or ignorant. Medical malpractice means the unskilful treatment, by a professional person, such as a physician, whereby the patient's health is injured or death follows the treatment. Wilful or criminal malpractice consists in the administering of a drug, or the performance of an operation, by a physician or surgeon, which he knows or expects will end in injury or death. Negligent malpractice consists in the gross negligence or failure to render that attention to the patient which his condition requires, by a physician or surgeon, but lacking criminal or dishonest motives.

Negligence has been declared to be the omission to do something which a responsible person, guided by those considerations which ordinarily regulate the conduct of human affairs, would do, or the doing of something which a reasonable or prudent person would not do. Ignorant malpractice consists of the administration of medi-

* Read before the Grand Traverse-Leelanau Medical Society, May, 1913.

cine or the performance of operations which do injury and which an educated physician or surgeon would recognize as unsuitable.

We are expected to use ordinary care, skill and diligence in the treatment of our patients. This means the ordinary care, skill and diligence which is commonly practiced by physicians in the same neighborhood and in the same general practice.

We are held responsible, as I have said, for acts of omission. For instance, if a physician be called on to treat a patient and he does not make a careful examination to find the cause of the trouble, and it later develops that the patient is suffering from a serious malady, the nature of which he has not been told in time to take proper measures for the treatment of such malady, then the physician may be held liable for ignorant malpractice. We cannot be too careful or too thorough in our examinations. I think that in many instances, through gross carelessness, we are apt to omit a careful and thorough examination, thus not only making ourselves liable for the charge of ignorant malpractice, but also making the future treatment of the patient much more difficult.

In cases of criminal abortion we are many times placed in trying positions. Criminal abortion may have been begun by the patient herself, or by some individual acting with her consent, and it is usually only when conditions are unfavorable and the patient in a critical state that we are called in. If the physician himself commits the abortion, he is surely liable.

We will do well to bear in mind the following points in the New York state law regarding abortion—similar to the Michigan law—perhaps best illustrated in the form of question and answer.

"Is it the duty of a physician to inform the officers of the law that an abortion has been produced illegally?" "Does he render himself a party to the crime under the law if his information is not forthcoming?" "It is, of course, a moral duty for every individual to assist as far as possible in the detection of crime and the bringing of the guilty to punishment. It therefore follows that a physician's duty to report a case of illness which he suspects to involve criminal malpractice is not a duty imposed on him by any statute; and that for his failure to so report, considered by itself alone and apart, he is not liable to any specific punishment."

Further, "Theoretically speaking, the position of the physician is impregnable and his immunity complete. From a practical standpoint, however, if the patient dies and the circumstances be such as to lead anyone to believe that malpractice has been committed, he runs a grave risk of the suspicion of being an accessory. His duty, under the circumstances, then relates only to himself and his conduct should be such as to conduce to his own protection."

"Where the patient is in the house of a midwife, or where there is the slightest reason to believe that a criminal act has been committed or that death might ensue, it is then an imperative duty for the physician to provide himself with the services of a consultant, whose evidence, added to his own, should suffice to prove the integrity and wisdom of the treatment. In all that we do, we should be open and above-board, so that suspicion, if any arise, may be disarmed. This is, after all, all the advice that can be given."

"The New York law specifically states that no physician or surgeon shall be allowed to disclose any information which he has acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity. This law is practically the same in all the states. It would seem, from a casual observation of the law, to protect crime, but it is interpreted quite differently in criminal cases; but is stated as it is to protect the public from slanderous statements which might be made by a physician in general cases. If, in performing his duties in criminal cases—as far as the risk for being held liable for slanderous or libellous statements is concerned—it is enough to say that a physician who, in good faith, had reason to believe that the crime of producing an abortion had been committed, would be protected from any action for damages, if he communicated his suspicions to the proper authorities, even if it after turned out that the person against whom he had given evidence was not guilty of the suspected crime.

"It should be observed that such a communication (privileged communications) should be sensibly made. They must be honestly believed and the communication must be limited to those who have jurisdiction to entertain the complaint, or power to redress the grievance, or some duty or interest in connection with the matter. If the physician idly disseminated this suspicion, and it turned out to be false, he would then plainly and justly be liable to the individual whom he had carelessly slandered."

In cases of infanticide where the mother of the infant may claim ignorance of her pregnancy, I have knowledge of a recent case which would very strongly help to maintain this plea. I will illustrate: A woman of 42 years, married eighteen years, was having stomach trouble. She had been

treated for some form of stomach trouble for about seven or eight months, with no relief. On being examined about the eighth month of pregnancy, by another physician, she was found pregnant and told of her condition, with very great surprise to herself. So we see that it is possible for a woman to be ignorant of her pregnancy, though this, as we know, is a rare occurrence.

"We are expected, as before said, to give to our patients the benefit of our best judgment, although we do not render ourselves liable for a mere error of judgment. If, however, the latter is not consistent with reasonable care, skill and diligence, then we are liable. In action to recover damages for malpractice, the plaintiff may recover, although the physician was summoned and paid for by another. The husband of a woman who suffered death through unskilfulness in performing a surgical operation may recover damages from the surgeon for causing the death of his wife. Under some acts, a woman may sue alone for injury caused by malpractice."

The measure of damages may be arranged as follows:

"1. Loss of time or labor arising from injury sustained by malpractice.

"2. Reasonable expenses incurred for surgical, medical and other attendance in consequence thereof.

"3. Diminished capacity for work at the trade or business of the injured party in consequence thereof.

"4. Bodily pain and mental anguish in consequence thereof. Regard, also, should be made as to whether the injury be permanent or temporary and to the location of the injury."

"A physician or surgeon may be held criminally responsible for his malpractice, but only in case of the grossest ignorance or criminal inattention. If a medical man, through gross ignorance or inattention, cause the death of a patient, he is guilty of manslaughter.

"Then, to sum up the foregoing, the medieal man is guilty of criminal malpractice:

1. When serious injury or damage results on account of his gross ignorance or neglect.
2. When he administers medicine or uses a surgical procedure in attempt to commit crime prohibited by statute.
3. When he wilfully or intentionally neglects to adopt such measures as may be required for the safety of his patient.
4. When he willfully or intentionally uses any medical or surgical procedure which is liable to endanger the life or health of his patient."

"A physician is civilly liable for any injury that may result which is traceable to his want of knowledge or negligence. He is expected to exercise an average amount of skill and care in the treatment of his cases, according to the locality in which he lives. If he exhibits these qualifications, he is not to be held accountable for results in the absence of an express contract to cure the patient."

"The fact of his having treated a patient gratuitously does not relieve a physician of his responsibility to furnish proper treatment, care and attention. He is not obliged to accept the treatment of a patient against his will; he cannot, however, withdraw without giving sufficient notice of his desire to do so."

"An action for malpractice cannot be brought against a physician after he has brought suit and obtained judgment for his services. He is relieved of all responsibility in connection with the treatment of his patient when the latter failed to follow or live up to the advice of the physician."

"A physician is civilly responsible when his assistants, through ignorance or carelessness, injure his patient, but he is not accountable for any wilful criminal act on their part. He is not responsible for any errors in judgment or mere mistakes in matters of doubt or uncertainty. He is not presumed to engage for any extraordinary skill or extraordinary attention and care."

A physician should always beware of compromising himself by a promise to eure the patient; if, however, he be so unwise as to make such a promise or contract, he will be held by the law to a strict performance of the same. In case of failure, it will be no defense for the physician to allege the occurrence of unforeseen conditions, neither may he allege insufficient skill or dexterity; these, he is supposed by the law to possess when he undertook the case.

It is *par excellence* for us in our practice to be at all times alert to our needs, and if we have a serious case, whether we feel competent or not, to have the counsel of one or more men in our own profession, of good standing, see the case with us and thus have added proof of performing our duty.

The fact of our serviees being gratuitous in any case does not affect our duty to exercise our best skill, care and diligence. As an illustration: If a physician should treat a patient for ten

months and abstain from making a claim for his treatment, particularly in a doubtful or balanced case, then it might be looked on as an admission of neglect or want of skill on his part in the treatment of the patient and would be one of the evidences against him. Therefore, if a physician has any idea that a suit for malpractice is being instituted against him, he should at once sue for the account, and do it before the patient begins his.

Here is something we should remember: "A recovery by a medical practitioner for his services will act as a barrier to any future action for malpractice, with some exceptions. In some states, however, it is held that if recovery be by confession or default it is not a bar."

There is one thing of which I wish to speak before closing and which diverges a little from the subject, but which should be considered along with it and that is—our relations to one another as coworkers in the same general line of work. We know that jealousy and selfishness too often enter into our work, and that because of this we are not charitable one to the other; I wish to say right here that this attitude does not pay. We would get along much better and live much happier if we did not allow the laity to misinterpret us, and if we would stand together and for one another, except in gross neglect or crime. We are supposed to be educated and intelligent beings, but if we are not broad enough to overlook the little things in others, which are not malicious, then I feel that our knowledge is lacking and we need a self-examination to see wherein we, ourselves, are at fault. I do not believe that any one of us is free from censure, and a self-examination would be profitable to us all.

How many of the laity would ever start a malpractice suit, or at least accomplish any result thereby, if we absolutely discouraged them when they come to us with their stories? We know that in most cases, as I have said, that every physician is doing his very best—according to his knowledge—for his patient, and that outside of those in the immediate family, there is no one more anxious to have the patient get well than the physician in attendance.

I hope that in this short outline I have brought something to your attention which will be of profit to you. I wish, also, to say that the information regarding these medical laws, or most of it, has been obtained from Dr. Justin Herold of New York, and all the honor is due him, for in many instances I have made exact copy of his work.

REPORT OF A CASE OF PUERPERAL SEPTICEMIA *

GERTRUDE M. JOHNSON, M.D.
BATTLE CREEK, MICH.

The patient, Mrs. I. L. P., an American woman, aged 36, came under my care Jan. 17, 1913.

History.—Her history is as follows: Mother living, has chronic stomach and bowel trouble. Father living and well. Three brothers all living and well. Aside from whooping cough and measles was in perfect health as child. Had Bell's palsy at 19, which left some permanent facial paralysis. Menstrual periods were regular and normal. Length of period one week. Married. With first pregnancy patient had a missed abortion, which was not diagnosed until some symptoms of septicemia had intervened. The uterus was emptied then. At that time the patient had some arthritic trouble. She had a birth four years ago with instrumental delivery, but normal puerperium, and on Dec. 12, 1912, a second birth with normal delivery. On the 14th the patient had a slight rise of temperature and very bad odor to lochia, and the following day, the fourth day of confinement, her physician used a dull curet and removed from the uterus a partly organized blood-clot, which he said was septic. A vaccine specialist was called in by her physician and they administered to the patient a stock vaccine for streptococcus. After two days of this, her temperature became normal. In the meantime an autogenous vaccine had been made from the uterine secretions and she was given an inoculation on the sixth day. She had no temperature then until the eighth day of confinement, when she began to have chills and her temperature ran between 103 F. and 104 F. Later she sweat profusely, and temperature fell gradually and was normal by morning. Patient had no rise of temperature then until January 3, when she had repeated chills, and temperature went to 105½ F. Began sweating after midnight and temperature was normal by morning. It remained normal then, except for slight reaction to vaccine on January 6, until January 11, when it was found 102 F. at 8 a. m. Chills later in the day brought temperature to 103 F. The next day temperature ran to 105½ F., and on the 14th, 106.4 F. Each day continued the same then, the height of temperature varying very slightly and coming up with chills and falling with sweats. Patient had a little hacking cough which she said she had had for about three weeks

* Read before Calhoun County Medical Society, May 6, 1913.

following a little cold she had taken. To the last two doses of vaccine there was no reaction, and her physicians, thinking surgical intervention was necessary, consented to her coming here.

Physical Examination.—On her arrival showed a woman of fairly good development, skin pale, tongue coated, pulse rapid (count 120) and irregular. Size of heart normal, a small murmur was heard at the apex and base, but was not constant, and because of condition of blood was judged as a haemic murmur. The lungs were negative. Splenic dullness extended from the sixth to the tenth rib. Liver dullness was normal. The abdomen was distended with gas. Lower border of the stomach was one inch below the umbilicus. There was tenderness over the right half of the abdomen, but particularly in the lower quadrant. Slight tenderness under the right rib margin. The uterus was found large and retrocessed, but not larger than would be expected so short a time after delivery. A dense hard mass was found in the right side of pelvis apparently lying behind the right iliac fascia.

Because of the patient's cough a fluoroscopic examination of the chest was made. An x-ray plate of abdomen was made to exclude any possible pus accumulations there. The report of the Roentgenologist, Dr. J. T. Case, was that x-ray studies show a marked collection of gas throughout the entire colon, also in the pelvis, but no evidence which could be interpreted as indicative of a pus collection.

The regular blood analysis showed a hemoglobin of 70 per cent., red cell count of 34 per cent., white cells 90 per cent. and blood-pressure 90. A differential blood-count showed no pathological cells present. The small lymphocytes were diminished by half, large mononuclears were diminished, eosinophils diminished and transitional forms increased. The red cells were of normal size. A blood culture was made. The smear for differential count showed the blood full of *Streptococcus pyogenes;* even large clumps of them were found. Urine analysis showed diminished quantity, low specific gravity, greatly diminished chlorids, urea 3.5 gm. for twenty-four hours and chlorids only .42 gm., a trace of albumin and urobilin present. Fecal analysis showed a mucous colitis present.

Patient entered the house about 3 a. m., her temperature was normal then and she was in profuse perspiration. Chill came at 1:30 p. m., and before 6 p. m. her temperature was 106. Patient was delirious and condition grave. She was seen in consultation by the chief surgeon, Dr. J. H. Kellogg, who decided that nothing could be done for the patient in a surgical way.

Treatment.—It was decided to give antistreptococcic serum, so 10 c.c. were introduced slowly. There was no unusual reaction, another dose was given in six hours. A third dose of 20 c.c. was given six hours later. A thermophore pack was kept on the bed and the minute there was the least sign of chilling she was wrapped in hot blankets, given hot drinks, etc. Cooling measures were applied during the fever and the ice-bag for the support of the heart was used systematically. Water was given systematically. The patient took practically no food, though the attempt to feed regularly was persisted in. One attempt was made to give saline infusion because of low blood-pressure—only 73—but pain was so great it was not persisted in. Water was also introduced by the drop method and by retaining enema into the bowels.

The serum treatment was kept up for five successive days, the patient receiving the first day 20 c.c., second day 60 c.c., third day 100 c.c., fourth day 160 c.c. and fifth day 120 c.c.—460 c.c. in all. On January 19—two days after coming—after consultation, she was given 9 c.c. of Bannerman's solution, intravenously, in the left median basilic vein. During the last two days when serum was given patient's heart was supported by strychnin. Up to this time patient's temperature followed the same course, the only noticeable change was that her chills were increasing in length of time they lasted and in severity. The patient was more delirious, vomited nearly always during the chills, was in a stupor part of the time and was generally weaker. In a differential count taken January 20, there were no bacteria found and none were found at any subsequent time, though several tests were made. At that time microcytes, macrocytes and poikilocytes were found, the size of red cells varied and morphology was given as irregular. The other features remained about the same. Urine showed granular and waxy casts that day, but otherwise it was same.

Subsequent Course.—The patient now began to have chills twice a day followed by the usual rise of temperature. The chills lasted sometimes forty-five minutes and were so severe as almost to shake the patient off the bed. In a few hours after height of fever temperature fell as low as 94.3 F. The pulse ran as high as 140 during fever. On the evening of February 2, it was noticed that patient's face was very puffy and spotted with purpuric-like spots. She complained of numbness and itching of the extremities and

there was extensive ecchymosis on the legs. She was unusually white around the mouth and pulse was weak and rapid. The spots were still on the face the next morning and the patient complained of pain and lameness in the right shoulder, had headache and was very despondent. On February 4 she broke out with urticaria over face and entire body. She had two chills that day, one lasting forty minutes and the other twenty-five minutes. Temperature was 105 F. later and patient vomiting during chill and delirious afterward. At this time the patient's food was averaging about 600 calories per day, most of which she retained. On the 6th she had a follicular pharyngitis, her arm was very bad and she said she felt as if all her bones would break if she moved. She was very restless. She was very stiff the next day, had pain when she moved and temperature was subnormal all day, but had chill at midnight lasting fifty minutes, vomiting. Heart was very weak. Gave her stimulants. On the 9th the patient began to have sharp pain in the right knee and leg. An examination of the heart showed its condition same as on entrance.

Examination of the pelvis on the 10th showed the thickening behind iliac fascia less dense and board-like. Hip and left leg began to pain that day. It will be noticed that about this time patient's temperature was not running quite so high, about 103 F. and 104 F. The next day her flesh hurt all over and she began to have such great pain in her feet that they could not be touched. Her feet and ankles were edematous. Pain began in the lumbar region and in both sacro-iliac synchondroses. It was very severe so that patient screamed for five or ten minutes at a time on slightest movement. She also had involuntary contractions of the muscles which would cause extreme pain so that she would awaken from sleep screaming. The temperature was very high again for a few days and the chills abated but little. Patient was hysterical part of the time from the pain. She lost her voice and could not speak above a whisper and her mind was bewildered. She was given large doses of aspirin every day, and codein and some morphin were used for relief in addition to hot packs. On the 23d the pain in the shoulders and knees was abating some, but it was so extreme in the right sacroiliac synchondrosis that it was thought advisable to examine her under gas. This was accordingly done, but no evidence of suppuration was found. The swelling behind the iliac fascia had practically disappeared, leaving only a hard small point of induration. The uterus and appendages were normal. There was no enlargement at the sacroiliac synchondrosis of either side. All joints were carefully examined and nothing abnormal was found. The conclusion was that there was no suppuration in any of the arthritic joints. She was greatly relaxed and relieved after anesthetic. The next day patient's temperature did not go above 100 F., and the following day, February 26, was the first twenty-four hours in about eleven weeks without chill or rise of temperature. The temperature continued normal after that time except for a slight rise one or two evenings when overtired. The pain gradually disappeared from joints following the course of its appearance, shoulders first and back last. Appetite improved rapidly, on March 2 patient ate over 2,000 calories of food, and in a week more was eating 3,000 calories.

For two weeks she continued very nervous and restless and peevish. During the extreme pain in her back she could not be moved, and the heat and moisture and pressure contributed to a sudaminal eruption that covered the back, and to two small bed sores, one of which healed in a few days, the other had become infected and developed a superficial abscess over the left sacro-iliac synchondrosis. This was lanced by the assistant surgeon, Dr. Harris, and drained and healed in a normal way. There was a question brought up as to whether, since it lay immediately above the joint, that was so painful, it did not come from the joint so the wound was filled with Beck's paste and an x-ray again taken by Dr. Case. It proved conclusively that the joint was not involved.

April 13 a red spot was noticed on the arm at the point of injection of the median basilic vein with Bannerman's solution. In two days an abscess had developed there and was opened, evacuating more than a teaspoonful of pus. Induration extended upward along the vein for an inch and a half. The wound healed rapidly. The patient improved rapidly under hydrotherapy, massage and joint movements. She gained in weight, bowels moved normally twice a day, urine cleared up, pulse grew slower, murmurs disappeared from the heart, blood-count improved and patient gained daily in strength. She was allowed to go home April 27. For a week previous to that time she had been able to walk unaided the length of the halls and back, and had played the organ, pumping it herself. She had occasional little pains in the joints on damp days, but I considered her convalescence far enough advanced to allow of her going home with perfect safety.

A SERIES OF CLINICAL CASE REPORTS

H. N. TORREY, A.M., M.D.
DETROIT

ANKYLOSIS OF HIP ARTHROPLASTY

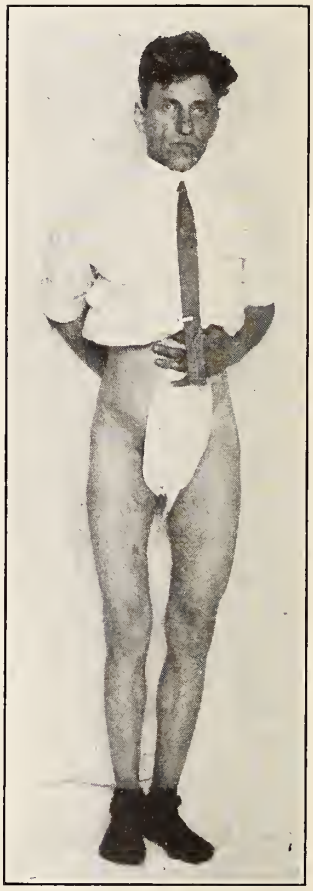
The patient, a male, 31 years of age, was referred to me June 24, 1912, by Dr. W. F. Metcalf of Detroit.

History.—The history is as follows: Family history, no tuberculosis. Past history, childhood diseases with no sequelae; no typhoid, pneumonia, scarlet fever or diphtheria. The patient during childhood remembered having had many "sore throats," but with no complications. At the age of fifteen (in 1896), he was severely ill for three months with "inflammatory rheumatism." At that time he had a high fever and all the joints were red, swollen and very painful. He suffered no ill effects following this attack. Similar but milder attacks followed at intervals of from six to eight months, until 1903. In the Fall of this year the patient was taken suddenly ill with a chill followed by fever, and an inflammatory involvement of all the joints of the upper and lower extremities. After one month the infection was localized in the right hip. There was exquisite pain upon any motion of the hip joint, and the only relief obtained was by drugs and by flexing the thigh on the abdomen. The swelling was slight and there was no redness. The treatment was the customary medical one, and extension was not applied. He recovered after an illness of six months with the hip in the present condition.

Physical Examination.—A man fairly well nourished, with normal heart and no lung changes. He walked with difficulty in a stooped position, using a cane, and with the right shoe built up ten inches. The right thigh was flexed at an angle of 45 degrees and the hip was immovable. The skiagram showed a bony ankylosis. The knee could not be extended completely, because of contraction of the flexors. (This history is a typical one of metastatic arthritis following tonsillitis. The treatment, judged from present-day standards, was not efficient, as the application of extension would have relieved the pain and the deformity, and probably prevented the ankylosis.)

1. Arthroplasty of hip. Photograph taken May 24, '13, to show condition previous to operation.

3. Arthroplasty of Hip.



2. Arthroplasty of Hip.

Operation.—Sept. 7, 1912.—Arthroplasty following the technic as outlined by Dr. J. B. Murphy of Chicago. A U-shaped incision was made through the skin over the great trochanter, and a similar but larger flap was fashioned from the subcutaneous fat and fascia lata. The joint was exposed by sawing off the great trochanter,

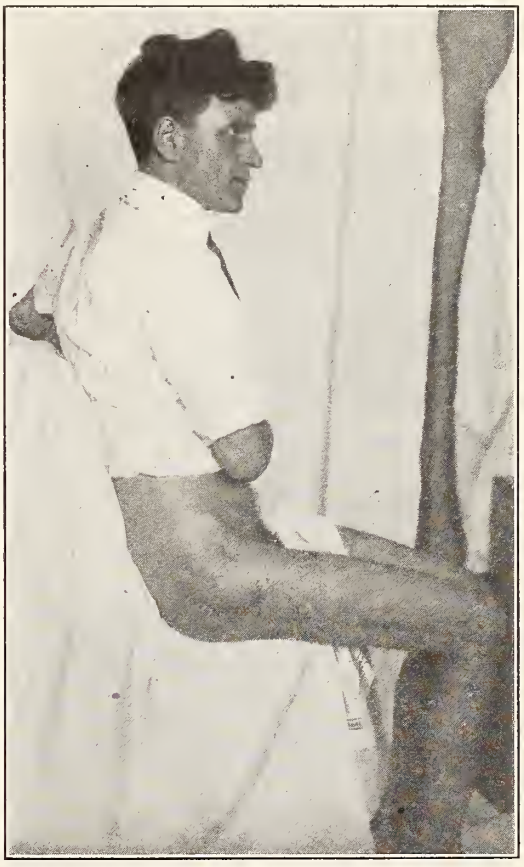
and the capsule was freed from the neck of the femur, leaving its attachment to the acetabular margin intact. The head of the femur was then chiseled free from the ilium. In doing this, a portion of the head was broken from the neck. The head and socket were prepared by means of the Murphy end mill and reamer, and after suturing the capsule and pedicled fascia lata flap in position in the acetabular cavity, the femoral head was replaced. The trochanter was nailed in position and the transfixed muscles repaired. The wound was closed in the regular manner and dressed in a voluminous 5 per cent. carbolic acid dressing. The patient was placed in a dorsal position and double abduction was maintained by the Rainey modification of the Travois splint. Buck's extension was applied. There was some

4. Arthroplasty tabes.

shock following the operation, but the general condition was good after eight hours. Except for a sloughing of a small portion of the distal end of the skin flap, there were no further complications and the patient was about on crutches in the fifth week. He had fairly good motion in the hip at this time and practically no pain. He was discharged from the hospital Oct. 26, 1912. When seen in November, 1912, he was in good health and had every motion of the hip, though not yet in a normal degree. Extension of the thigh was still limited by the contracted abductors. (This condition, I am sure, will be remedied by the proper exercise and massage.) May 24, 1913. there was one-half inch shortening of the right leg. The patient stood in an erect position and walked well. The movements in the hip, while not yet normal, were increasing gradually in degree. The patient attended daily to his work as "store keeper" in an automobile factory, and was freed from his previous handicap. The photographs were taken May 24, 1913.

RHINOPLASTY

This case contains nothing new in the matter of technic and is reported because of its general interest. The patient, a male, 45 years of age, was referred to me by Drs. A. P. Biddle and A. R. Wollenberg of Detroit, with a diagnosis of epithelioma of the nose and the upper lip.



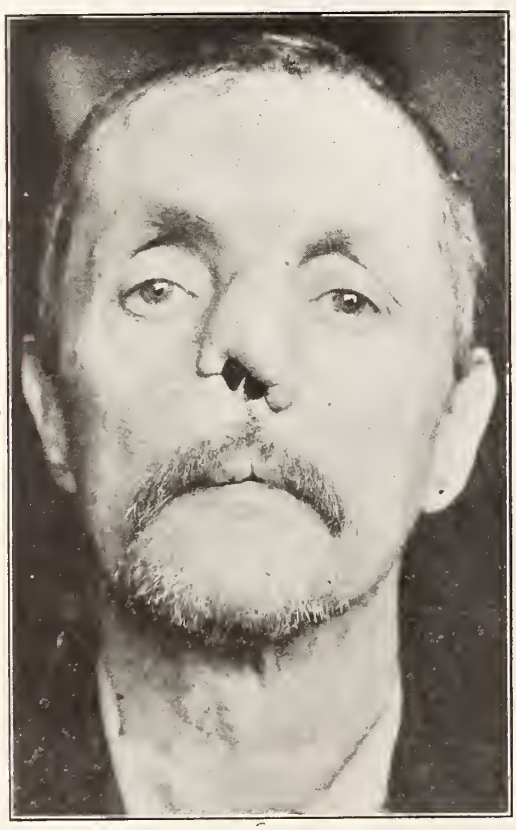
5. Arthroplasty of Hip.

History.—The history, in brief, is as follows: Family history and past history were not important. Present illness began two years ago, with a small skin lesion on the nose. The growth gradually extended, involving the soft parts of the nose and the adjacent portion of both cheeks. The lesion was excised one year ago, but recurred in four months and since this time it had extended rapidly. Physical examination showed an ulcerating, infiltrating growth, involving the soft parts of the nose, nasal mucosa over septum and the median portion of the upper lip. Wassermann test negative. No cervical glands enlarged. Tissue excised for diagnostic purposes showed squamous cell carcinoma.

Operation.—On Oct. 29, 1912, I made a dissection of the submental and submaxillary glands of both sides of the neck. At the same time a

wide excision of the growth was made, removing all the soft tissues of the nose and the nasal cartilages, together with the anterior portion of the septum and a major portion of the upper lip. The lateral portions of the upper lip were freed from their bone attachments and sutured together in the median line. Rubber tubes were inserted into the anterior nares. The patient made a rapid and uneventful recovery from this operation. The lymphatic glands showed no signs of metastasis.

Post-Operative Course.—On Dec. 12, 1912, the patient presented himself for plastic work. He had been treated with the x-ray in the interval by Drs. P. M. Hickey and W. A. Evans of Detroit. Examination showed a large pyriform



Rhinoplasty. Photograph taken April 15, 1913. Result obtained.

opening in the absence of the nose, which gave the patient a very repellant appearance. There was no evidence of recurrence of the growth. The lip showed a median line scar, otherwise normal.

Plastic Operation.—Rhinoplasty by the Indian method. The skin edges of the nasal defect were freshened and a flap from the forehead was turned down and its edges sutured to those about the opening. This gave an epithelial lining for the new nose and placed the raw surface of the flap outward. A second and much larger flap was cut from the forehead in an oblique manner so that its pedicle included the left angular artery. The lateral edges of this flap were folded together laterally to form the alae of the new nose and its median portion was molded to form the septum. It was then sutured in place to the underlying flap (the raw surfaces being together) and to the adjacent skin edges. The defect in the forehead was lessened by suturing the surrounding tissue together and by sliding skin flaps upward from the area between the eyes. The newly-formed nasal openings were kept open by rubber tubes and a wire gauze mask was placed over the face. The patient made a rapid recovery and all the wounds healed by first intention.

On Jan. 3, 1913, the defect in the forehead was covered with skin grafts and a wire gauze mask was placed over the wound. The patient left the hospital Jan. 22, 1913, in good condition. The forehead wound still showed areas of granulation and the skin grafts were gradually extending.

I had planned to do further work on this case, but the patient refused, being well satisfied with his present nose. The retraction upward of the left side could easily be remedied and would give the patient a very good cosmetic result. I had further considered supporting the nose by a framework of costal cartilage placed in a tunnel between the two epithelial layers, but this was unnecessary. The patient was last seen on May 20, 1913, and there was no recurrence of the epithelioma.

CARCINOMA OF THE THYROID GLAND

Carcinoma of the thyroid gland is by no means as infrequent as one would think in looking over the literature on the subject. On the contrary, malignant diseases of this gland are not rare, as can be seen from the reports of the Mayo Clinic, in which eighteen cases of carcinoma were found in 1,000 operations for goiter, and nine were refused operation.

I wish to report two cases, one with extension and metastasis in a woman 58 years of age, the other in a young woman of 24 years. In the first case the diagnosis was made at the physical examination. The condition was inoperable, and the diagnosis was confirmed at autopsy. The second case was an especially instructive one, a growth of the thyroid occurring in a young woman and giving no sign or symptom of its malignant nature. The diagnosis was unsuspected and was made from the specimen removed at operation. There has been no recurrence in seventeen months, and the patient is in the best of health. I report these cases because they effectively illustrate the following very important points: First, that carcinoma of the thyroid is amenable to surgical treatment only when diagnosed early; second, the question of malignant degeneration must be considered in all cases of

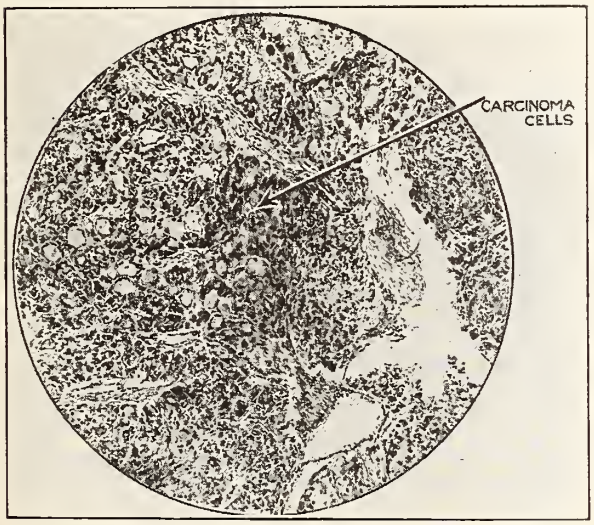
goiter after puberty, especially in those cases where there is a sudden and rapid increase in the growth of the goiter.

CASE 1.—Mrs. M. B., aged 58 years, a patient of Dr. G. E. McKean, seen at Harper Hospital, Nov. 26, 1907. History, no carcinoma or goiter in the family. Personal history was not important.

Present Illness.—Patient has had an enlargement of the thyroid without symptoms for ten years. Four months ago, she had pain in the goiter and it enlarged rapidly. As the growth increased, she experienced severe pain, great difficulty in swallowing and marked dyspnea. The increase in size had not been so apparent during the last month, but she noticed the mass was becoming hard and nodular.

Physical Examination.—Physical examination showed an emaciated woman, with marked dyspnea and dysphagia. A hard, nodular, diffuse mass in the lower and anterior portion of the neck; dullness on percussion over the upper third of the sternum.

The patient died ten hours later.



Carcinoma of Thyroid. Area of diffuse infiltration.

Autopsy.—Autopsy revealed a nodular, infiltrating growth of stony hardness, involving the left lobe of the thyroid gland, trachea and esophagus, together with the muscles of the neck. The primary growth occurred in the left lobe of the gland, and breaking through the capsule invaded the surrounding tissues. A section showed a structure of firm, fibrous tissue with occasional alveoli, containing nests of epithelial cells. Metastasis had occurred in the mediastinal lymph glands and in the lungs, but none in the bones.

Diagnosis.—Scirrhous carcinoma of the thyroid gland with metastasis in the mediastinal lymph glands and lungs.

CASE 2.—Mrs. W. B., aged 24 years, consulted me Dec. 28, 1911, complaining of a mass in the neck and hoarseness.

Family History.—Two uncles died of pulmonary tuberculosis. An aunt and cousin have goiters.

Past History.—Childhood diseases with no sequelae; negative history of infectious diseases. Patient had chorea at the age of 10, and at the age of 15 had a lung condition which was diagnosed as "consumption." Since that illness she has had bronchitis every winter; no night sweats, no loss of weight; tubercle bacilli were never found in her sputum. Marital history, two children (5 and 3 years), alive and well. Patient had one miscarriage in 1910, followed by sepsis. Her menstrual history was normal.

Present Illness.—The patient noticed a small goiter (left side near median line) in 1906, following her first pregnancy. The enlargement

Carcinoma of Thyroid. Case No. 2. Photograph taken 17 months after operation—note absence of scar.

increased in size until at her second confinement (in 1908) it was the size of a "hickory nut." It remained the same, causing no symptoms until August, 1911, and since this time had gradually increased in size. There had been no pain, no difficulty in swallowing and no choking. The only symptom that she noticed was slight hoarseness, which came on at intervals.

Physical Examination.—Physical examination showed a thin, anemic woman with no signs of hypothyroidism or hyperthyroidism. A firm oval mass involved the left lobe of the thyroid; no fluctuation, freely movable; no nodules. The mass measured 8x6x5 cm. (approximately). No lymph glands were palpable. Larynx: congestion of vocal cords, no paralysis. Lungs showed no pathological changes.

Diagnosis.—A diagnosis was made of adenoma of the thyroid and its excision advised.

Operation.—Jan. 22, 1912; operation at Harper Hospital. The left lobe containing the growth, together with the isthmus, were excised. The increased vascular supply of this lobe made me suspect that the condition was not an adenoma. There were no adhesions and the gland was easily shelled out of its capsule. The right lobe was normal; no lymph glands were enlarged.

Post-Operative Course.—The patient made a rapid and uneventful recovery, leaving the hospital Jan. 31, 1913. The hoarseness cleared up in a month and the patient has resumed her vocation as a singer. May 29, 1913, the patient was in the best of health; no return of symptoms and no recurrence. She is at present the soprano of one of the local churches.

Carcinoma of Thyroid. Case No. 2. Section through neoplasm.

Pathological Report.—Pathological report by Dr. J. Sill, Pathologist of Harper Hospital: tumor of the thyroid, regular, oval, 9x7x5 cm. Its surface is grayish, mottled with red. On section, it is homogeneous in texture, gray in color, mottled with dark areas. The microscopical picture is that of an adenoma of the fetal type with some secondary fibrosis. The cells, however, are markedly atypical in their general appearance and staining reaction. In many fields there is a marked tendency to infiltrate the surrounding tissues.

Diagnosis.—Carcinoma of the thyroid gland (beginning in a fetal adenoma).

Pathology.—In general, the epithelial neoplasms of the thyroid gland may be divided into three classes: (1) the ordinary alveolar type, (2) the scirrhous and (3) the adeno-carcinoma. The latter type is especially interesting in that neither the growth nor the secondary tumor depart histologically from the normal gland structure. Kocher, however, gives the following classification: (1) Genuine carcinoma of the thyroid, the most frequent of the epithelial growths, produced by a proliferation of the epithelial cells of the follicle; (2) proliferating goiter, consisting of solid masses of epithelial cells arranged at the periphery of the lobules and uniting toward the center to form tubes and follicles; (3) metastatic colloid goiter; (4) papilloma; (5) cancroid squamous epithelial cancer; (6) glycogen containing epithelial goiter; (7) small alveolar epithelial goiter.

Etiology.—The majority of carcinomata of the thyroid gland follow the benign goiter. Halstead reports a case which shows a direct relation between trauma and the malignant condition. Pregnancy influences the development of cancer only indirectly through the simple goiter. Eberhardt, Müller and Speese (quoted by Halstead) report the disease more frequent in the female than in the male (60 per cent. female, and 40 per cent. male). While the disease is by no means uncommon before the age of 35, the majority of cases are between the ages of 35 and 50 years.

Signs and Symptoms.—Carcinoma in the early stages may be impossible to diagnose. Rapid growth, pain and symptoms of pressure in a hitherto simple goiter should at once excite suspicion, especially if the patient is in the cancer age. It is much better to advise the excision of the growth at once than to wait until the diagnosis can be definitely made. Extension and metastasis mean malignancy, but they also mean that it is too late for a radical cure. Metastasis is generally through the blood-vessels and involves most frequently the lungs, next the bones, liver and pleurae, the lymph glands more rarely (Kocher).

Prognosis.—Cures are only reported in cases in which the disease was radically excised during the early encapsulated stage. After the invasion of the capsule or the surrounding tissues the chances for cure are practically *nil.*

PRIMARY TUBERCULOSIS OF THE BREAST

Tuberculosis of the breast as a secondary lesion is of no special interest, whereas the primary involvement of this gland by the tubercle bacillus possesses much of interest and practical importance. The fact that this disease, especially in its early stages, is invariably confused with malignant lesions, and in its later stages other organs may be involved, shows the importance of the diagnosis and treatment of this condition.

Occurrence.—A search through the literature is rather unsatisfactory, because many cases are reported without full details, and it is impossible to differentiate the primary from the secondary types. Anspach[1] (1904) analyzed Bartsch's[2] series and found thirty authentic cases of pri-

1. Anspach: American Journal of Medical Sciences, cxx, 8, July 1904.
2. Bartsch: Inaugural Dissertation, Jena, 1901.

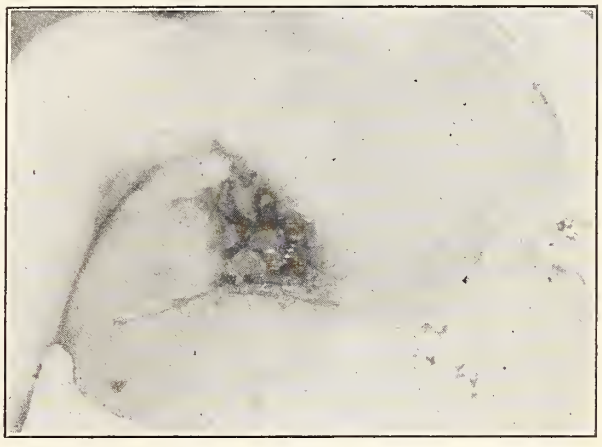
mary involvement of the gland. To these, Anspach added twelve. Schley[3] mentioned twenty more (though he does not differentiate between the primary and secondary lesions), bringing the literature up to 1910. Powers,[4] in 1913, reported one personal case of primary involvement and noted two from the Mayo Clinic[5] (in a series of 1,000 breast conditions). The five cases observed by Mantelli[6] and quoted by Powers were probably not all of the primary type.

Etiology and Infection.—Heredity is not a causative factor, and trauma plays an insignificant part in the etiology of this disease. Direct infection has been reported in several cases. The consensus of opinion is that the route of infection is through the blood and lymph vessels (mainly through the former) and that the site of infection is an abrasion at the nipple or in the skin of the gland. The disease is most common between the ages of 20 and 30 years. The female breast is practically always involved, generally when the gland is active. The cases of tuberculosis of the male breast are few (reported by Poirier,[7] Delbet,[8] Bartsch[2] and Parsons[9]).

Pathology.—The disease (both primary and secondary) shows itself in two forms: (1) the nodular or the discrete and (2) the confluent. In the first form the nodules may be single or multiple. They may remain stationary for a long period, but as a rule degenerate and form cold abscesses. The breast is seldom enlarged or deformed. The confluent type, on the contrary, degenerates and forms fistulae early and usually enlarges and deforms the breast. There are various stages between these two forms. The case which I report, while belonging to the discrete type, showed a general fibrous structure with nodules not unlike, in gross appearance, the scirrhous carcinoma. The axillary glands are involved in about 75 per cent. of the cases.

Diagnosis.—As a rule, the absence of signs or symptoms in the nodular type is such that the disease is fairly well developed before it is recognized. The confluent form, however, shows itself by the early enlargement of the breast and by pain. In general, it may be said that the diagnosis of the disease is very difficult in the early stages, and that it cannot be differentiated by signs and symptoms from other breast conditions, especially those of a malignant nature. In this connection, however, it is important to bear in mind the following points: Tuberculosis of the breast occurs at any early age (20 to 30); the patient generally has a tubercular history or may have other tubercular foci; the tuberculin reaction is positive; the growth very seldom retracts the nipple or is adherent to the muscles or skin; the growth is slow and generally painless; fluctuation or sinuses may be present; the axillary glands are usually involved early. With all this data there are many cases which cannot be differentiated from those with malignant conditions. In this event tissue should be excised and studied carefully in the laboratory. My experience with the quick-frozen sections in border line cases (the really important ones) has been very unsatisfactory.

Treatment.—Excision of the growth with little mutilation of the breast, followed by tuberculin treatment has given good results. Curetting or cauterizing the sinuses, excision or aspiration of the abscesses and other palliative measures have been done and the patients have been cured. In general, I am inclined to believe with Powers when he says that the classical operation must be the thorough removal of the breast, pectoral fascia and axillary contents. The dissection need not, however, be quite as radical as that used in the malignant diseases of this gland. Exceptional cases may be treated less radically, but they should be watched carefully, bearing in mind the danger of extension of the disease. The prognosis is good following the amputation of the breast and the removal of the contents of the axilla. Braendle (quoted by Powers) gives 92 per cent. of cures following radical measures. Excision of the growth only may mean another operation and may also give a bad prognosis.



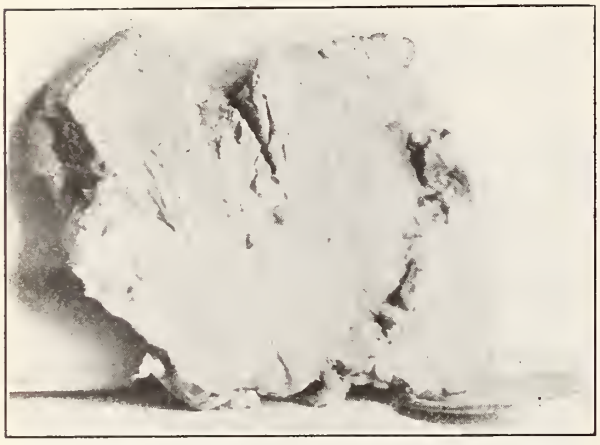
Cut No. 1. Tuberculosis of Mammae. Photograph taken following operation—shows skin grafts extending.

Admitting that "no case can be complete without an autopsy," I feel justified in recording this case as one of primary tuberculosis of the mammary glands on the following points: (1) the

3. Schley: St. Luke's Hospital Reports, 1910, ii.
4. Powers: Annals of Surgery, lviii, No. 2.
5. Wilson, L. B.: Personal communication to Powers.
6. Mantelli: Morgagni, Part 1, page 98.
7. Poirier: Archives Generales de Medicine, v, Edit. 1.
8. Delbet: Traité de Chiurgie, v, Edit. 1.
9. Parsons: British Medical Journal, 1907, No. 2431.

absence of a tubercular family or personal history; (2) the failure to find other foci of tuberculosis in the body; (3) the absence of tubercles in the axillary glands; (4) the pathological picture.

History.—The patient, a married woman, age 27 years, consulted me Jan. 24, 1913, regarding a mass in her right breast. Family history; no tuberculosis. Past history: always healthy; childhood diseases with no sequelae, negative history of infectious diseases. Marital history: four children (ages 7, 5, 3 years and 6 months), alive and well. All were breast fed except the last child, whom she weaned in December, 1912, because the child was not doing well on the breast milk. Menstrual history: normal, except for irregularity since November, 1912.

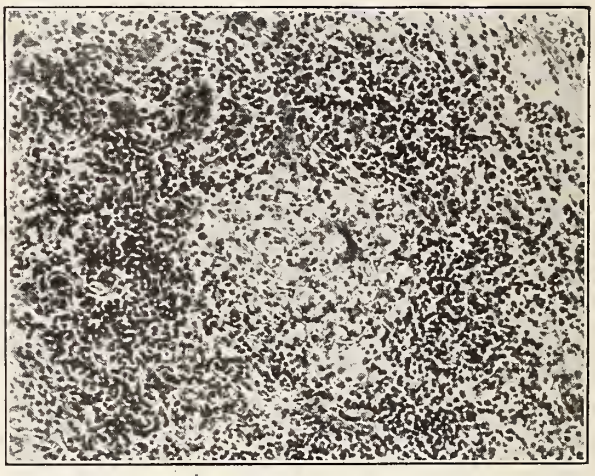


Cut No. 2.—Tuberculosis of the breast. Photograph shows cross section through amputated breast.

Present Illness.—The patient's attention was drawn to her right breast one week ago because of a bite inflicted by her husband when he was delirious. She noticed at the time several nodules in the breast. There was no pain or tenderness and she had no knowledge how long the condition had been present. The gland was not active, though it had been so Jan. 15, 1912.

Physical Examination.—Fairly well nourished woman with anemic pallor of the skin. Temperature normal. Lungs: careful examination showed no changes. Heart normal. Mammary glands: left normal, no nodules, no secretion from the nipple. Right, not active, no secretion from the nipple. The inner hemisphere and the lower and outer quadrant were involved by a diffuse infiltration with numerous ill-defined nodules (varying in size from a pea to a hickory nut). The condition resembled very much to palpation the "caked" breast of lactation. There was no redness or tenderness and no evidence of cyst or sinus formation. The nipple was not retracted. The mass was very diffuse and seemed attached to the skin, but the nodules were freely movable. The pectoral muscles were not involved. Palpation showed a little enlargement of one of the axillary glands. Very careful examination of the entire body was made, and no further foci of disease were found. A tentative diagnosis of malignancy was made, though the possibility of tuberculosis was considered.

Operation.—Harper Hospital, Jan. 25, 1913. A nodule was excised and a frozen section was made.



Cut No. 3.—Tuberculosis of Breast. Young tubercle in center of acinus, surrounded by diffuse round cell infiltration.

Pathological Report.—A neoplasm (not carcinoma), the nature of which could not be determined from the tissue section, but one which was probably malignant. Macroscopically, the neoplasm was not carcinoma, but resembled very closely sarcoma. There was no caseation necrosis or any other gross evidences of tuberculosis.

From these findings I decided to remove the breast and the axillary contents. The gland was

Cut No. 4.—Tuberculosis of Breast. Old tubercle with broad epithelial zone and small caseating center.

removed together with a wide margin of skin. The pectoralis fascia being adherent to the growth, the pectoralis major was excised and the pectoralis minor was cut from its costal attachments and sutured in place over the axillary contents, thus acting as a pad and preventing scar pressure on the vessels. The axilla was dissected clean; only two glands were enlarged.

Owing to the wide excision of skin I was unable to cover all raw surfaces with flaps and decided to cover the remaining area (6x8 cm.) with skin grafts at a later date. The patient made a good recovery.

Pathological Report.—By Dr. J. Sill (Pathologist of Harper Hospital) : The breast contains a large ill-defined, diffuse tumor in many areas involving the skin. The growth is pinkish gray in color, streaked with white bands of hyaline connective tissue. Microscopical sections show a diffuse inflammation of a granulomatous type superimposed on a rapidly growing adenoma. About the lobules of inflamed glandular tissue the connective tissue has become densely hyaline giving an appearance of an attempt to wall off each lobule. All the active tubercles were found within the lobule and not in the connective tissue. The larger ducts are here and there filled with caseous material containing degenerating polymorphonuclear cells. The striking characteristic of the larger tubercle is the small caseating center surrounded by a very broad epithelioid zone. The axillary glands show no evidence of tuberculosis.

March 24, 1913. The granulating surface was covered with Thiersch skin grafts. May 28, 1913, small areas of granulation were still present in the wound. The grafts practically all held, but have extended very slowly. The patient is in good health and there is no evidence of any tubercular lesion in the body. The patient is being treated with tuberculin by Dr. H. S. King of Detroit.

505-7 Shurly Building.

CLINICAL CASE REPORT OF FRACTURED VERTEBRAE *

F. C. KINSEY, A.M., M.D.
GRAND RAPIDS, MICH.

On the night of Feb. 18, 1913, a Syrian, employed at common labor, fell with a freight elevator about forty feet down the elevator shaft. A heavy truck was lying across his body when he was found, and this is undoubtedly what broke his back. He was taken to Butterworth Hospital in the police ambulance. Aside from the fracture of three metatarsal bones of the right foot, he had received no other injury except that to his spine. At the level of the twelfth dorsal and first lumbar vertebrae could be felt an angular prominence which protruded about an inch from the surrounding surface. Above this prominence sensation was normal, at its level hyperesthesia was present, and below this area paresthesia, gradually diminishing—after about two inches—into anesthesia of the lower trunk and limbs. He felt no pain from his broken foot and had no sensory perception of pins stuck into his legs and back below the injury. During the examination he seemed to suffer no pain except when his back was moved, on which occasion he emitted blood-curdling yells in a high tenor, Caruso-like voice.

The patient's anesthesia was evidently produced by pressure of a dislocated twelfth dorsal vertebra, along with a crushing of the twelfth dorsal and first lumbar vertebrae. To give him some immediate relief from this pressure, if possible, I determined to try an experiment in spinal manipulation—and to this, I believe, the man primarily owes his life.

He was suspended from a jury-mast by slings under his head and arms, thus causing the weight of his body to widen the intervertebral spaces as much as possible. Then, while several assistants steadied the body, an attempt was made to reduce the dislocation by pressure. It was conceded by those present that the prominence, while still palpable, was noticeably flatter. More important, however, was the fact that sensation had been restored anteriorly, showing that there was a diminution in pressure. While still suspended in his slings, the patient was encased in a thick plaster-of-Paris cast and taken to the ward.

From the time of the injury he had involuntary and unconscious bowel movements in bed. His knee-jerk was exaggerated and the cremasteric reflex was absent, together with ankle clonus. He had no ability to extend the leg, although he could flex it slightly through the action of the psoas and iliacus muscles. There was no tenderness or feeling in the testicle on pressure.

The man's symptoms persisted with what seemed a slow retrogression for nine days, when the pictures which Dr. Hulst will show to-night were taken, demonstrating a crushing of the twelfth dorsal and first lumbar vertebrae. No improvement in symptoms occurring, the patient was operated on May 1, ten days after his injury; Drs. Dubois and Collisi assisting.

Operation.—Cutting down over the involved area, the spinous processes, the laminae and the transverse processes of the twelfth dorsal and first lumbar vertebrae were removed with a rongeur forceps, thus exposing the spinal cord in its dura. Fragments of bone were found impinging on the dura and producing edema, but as no hemorrhage into the cord or pus formation could be found, the dura was left unopened. After clearing out the fragments of bone, the muscles were drawn

* Reported before Kent County Medical Society, May 28, 1913.

together, leaving a small wick drain, which was removed two days later.

Result.—There was no elevation of temperature and the patient recovered perfectly from the operation. The area of anesthesia, marked with ink on the posterior aspect of the man's lower extremities, receded in a remarkable manner—moving inward about an inch each day. The involuntary defecation and micturition continued for several weeks, but finally full control of the rectum was established and nearly perfect mastery of the bladder sphincter. The company for whom he worked have been very kind to him, purchasing, among other things, the ambulatory apparatus which I have brought down to-night. This was of great assistance to the patient at first in re-learning to walk, but he has now outgrown it and uses it very little. Aside from an involuntary dribbling when he first gets on his feet, and the natural weakness following so serious an accident, his spinal cord symptoms have practically disappeared. At present, while not very sure of himself as yet, the man is able to walk across the room unassisted.

ST. MARY'S HOSPITAL, DETROIT, STAFF CLINIC; CASE REPORTS

The regular staff clinic of St. Mary's Hospital was held in the hospital amphitheater, Wednesday evening, March 12, 1913. Dr. F. W. Robbins presided, and presented the first case as follows:

Gentlemen: It should happen only once in a long time that one should report a stricture of the urethra through which the surgeon cannot pass a bougie after long, careful and repeated attempts. It has been my misfortune, however, to have operated on three such cases within the past month.

The first of these was a patient who, through neglect, was first seen with extravasation of urine. The scrotum was much swollen, the penis was nearly as large as one's forearm and pus and urine had collected in the inguinal canal and infiltrated the tissues above the pubis.

A perineal incision was made, the finger passed up along the cord, opening up the infiltrated area and the strictured urethra incised. As a result the swelling gradually subsided and now we are passing No. 26 sounds through the urethra at intervals of five days.

The two other cases which I present to you were both operated last week. These cases were unlike the first and quite different from each other, and treated as I will now explain to you.

One of these cases is that of a negro on whom a perineal section was made a year ago. Below the scrotum was a hard mass extending from the urethra to the skin. This mass was as large as a small egg and surrounded a very small fistula. This was probably caused by an attempt on the part of Nature to close the fistula, which it seems she could not do. After making an elliptical incision around the small opening, I dissected out the entire mass down to the urethra, and incising it, I was able to pass a good-sized sound from the meatus into the bladder. It is our intention to keep this canal open with sounds until the perineal wound has closed and then insist that sounds be passed at longer intervals for an indefinite length of time.

The second case came into the hospital with a greatly distended bladder which we could relieve only by suprapubic puncture. After draining the bladder for several days by means of a catheter in the suprapubic wound and several attempts to pass bougies of various sizes, he was placed on the table, a sound passed through the bladder wound into the urethra and pressed against the proximal face of the stricture. The two ends of the sounds were then about a half inch apart, a perineal opening was made and the urethra incised between the ends of the two sounds. In this case there was no infiltrated mass to remove—a sound was easily passed—a number thirty. We expect, with attention to systematic soundings, to bring to this man good health.

By referring to the first case in which infiltration of urine had taken place, I desire to emphasize the necessity, in all such cases, of early operation. In one other case seen recently and in this one, life was undoubtedly saved by prompt operation. Two similar cases I have seen in consultation and operated, but too late to save life.

My first case shown to-night is an example of the ease with which some infiltrated masses may be dissected out. In connection with my last case I would suggest that in cases with retention due to strictures which cannot be passed with any catheter or bougie, the part of wisdom is, instead of puncturing the bladder with a small trocar, to pass a large cannula through which a rubber catheter may be passed and the cannula then withdrawn. In case this is done by means of retrograde catheterization, a later perineal urethrotomy will be made much easier.

Dr. Edward W. Mooney exhibited the next case.

This patient, a widow, 35 years of age, now convalescent, came to the hospital because of in-

tense, continuous, epigastric pain, which was increased by taking food and which was so severe that rest or sleep was out of the question. She was nauseated and frequently vomited small quantities of mucus; no blood was seen, nor could any history of hematemesis be obtained. Exhaustion was plainly evident; the epigastrium was tender and pressure near the region of the tenth dorsal vertebra on the left side caused pain.

Because of the irritability of the stomach, the increased pain caused by food and the possible danger of perforation or hemorrhage, no effort was made to give a test-meal to obtain the stomach contents for analysis. The bowel seemed empty, repeated washing with enemas gave no result, so we could not examine the stool for occult blood.

A diagnosis of gastric ulcer was made, the patient put to bed and given ¼ grain of morphin sulphate subcutaneously every three hours until the pain was relieved. Cracked ice was allowed to be eaten, but no food or drink was given by mouth. Each morning and night, after a cleansing enema had been given, the patient received four ounces of peptonized milk per rectum. For seventeen days she has had neither food nor drink per mouth, excepting, of course, the cracked ice. Improvement has been rapid, and the last few days the patient has been begging for food. Yesterday we started her on buttermilk, which she handled very nicely; this morning she received a bismuth and buttermilk breakfast, and the x-ray pictures taken by Dr. George C. Chene, show a marked ptosis, the upper border of the stomach being well below the navel, the lower border near the symphysis. We also found evidence of dilatation. The site of the ulcer is on the lower border, near the pylorus.

As far as present needs are concerned, the patient is practically well; she will go home tomorrow, with instructions as to diet and she will be given tonic medication to overcome the anemia and exhaustion resulting from her illness.

But what of the future? This attack is but one of many that have occurred in the past few years, and it is more than probable that she will have a return of the trouble. We will, therefore, advise her to return to the hospital when she is in good physical condition and to submit to the necessary surgical procedures to correct the ptosis and to remove the ulcer area if necessary, hoping, thereby, to escape the hopeless condition of cancer of the stomach which looms large ahead.

Dr. E. H. Sichler then presented the following case:

J. G., age 19, who entered the medical ward March 3, 1913. Occupation, laborer. Family history negative; personal history negative, with the exception that one year ago he suffered with an illness similar to that which he now presents. This previous illness lasted two months, after which he returned to work in normal health with the exception of a slight, persistent pain in the knee and ankle joints. This eventually disappeared. One month ago the patient suffered the second attack. This began with a sore throat, chill, rise of temperature, painful, swollen knee and elbow joints, together with the purpuric rash seen on his arms.

Examination.—This is not typical in its findings, inasmuch as he has been ill one month. Temperature 99.8, pulse 100, soft, regular. He is of slight build, sallow complexion, an anemic in appearance.

Eyes.—Sclera clear, mucous membrane slightly pale, pupils normal.

Nose.—Mucous membrane normal; no history of epistaxis.

Mouth.—Tongue clear; mucous membrane slightly pale.

Pharynx.—Congested; smears show streptococci and diplococci. Thyroid negative.

Chest.—Lungs normal; heart normal; hemic murmurs absent.

Abdomen.—Habitus broad; liver and spleen normal. No pain or tenderness in stomach or intestines. Has not had any pain, diarrhea or vomiting at any time.

Skin.—Face, abdomen and chest clear. The extremities are thickly covered with a purpuric ecchymosis. The rash varies from the size of a pin-head to that of a dime and has a tendency to coalesce. The rash appears in crops, apparently; when first appearing being bright red, later turning a chocolate color and gradually fading away. Itching is present, but not pronounced. There is no edema of the skin at present, nor does the history elicit any evidence of this symptom, except the swelling, now moderate about the knees and elbows. These joints are still painful.

Examination of the blood shows only a slight secondary anemia. Hemoglobin (Talquist) 80 per cent.; reds, 3,500,000; normoblasts, few; whites, small lymphocytes 15 per cent.; large lymphocytes 3 per cent.; polymorphonuclears 76 per cent.; eosinophiles 2 per cent.; myelocytes none. Coagulation time increased fifteen minutes. (Drop method.)

Stool.—No occult nor macroscopic blood.

Urine.—Albumin present; many red blood corpuscles; a few leukocytes and comparatively

many blood casts are present. The only apparent blood-leak (exudation), therefore, is in the skin and kidneys.

Diagnosis.—From previous history, especially sore throat, arthritis and purpura, and present symptoms, the diagnosis of purpura rheumatica or Schönlein's disease is apparent. He presents, in fact, a classical illustration of this disease. To differentiate from other purpuras, namely Henoch's (generally children), we have the age of the patient to guide us, also lack of gastro-intestinal symptoms such as diarrhea, pain, vomiting, no intestinal hemorrhages nor enlargement of the spleen. Toxic purpura from drugs, also that form of purpura associated with jaundice, may be ruled out by the length of the illness and absence of jaundice or existence of liver disease. Purpura hemorrhagica may be excluded inasmuch as this disease is typical to young girls and characterized by epistaxis and hemoptosis. There are no arthritic symptoms peculiar to this disease. Leukemia with hemorrhagic symptoms is accompanied by the splenic or glandular enlargement, plus the typical-picture, all of which are here lacking.

Treatment.—This is limited. In this case tonics and calcium lactate are being used, the latter being especially useful in increasing the fibrinogen content of the blood. Gelatin may also be given. Salicylates, on account of irritant kidney effects, must be given cautiously. Silver nitrate, 20 per cent., has been applied to the pharynx and tonsils.

Remarks.—The question has been raised whether we have a different form of arthritis in this case, as compared to the ordinary rheumatic form of arthritis. Some observers have noted a special streptococcus, differing from that usually found in rheumatic arthritis. Or are these purpuric forms of the same origin, differing only from the latter in the intensity of the infection, plus a low resisting power on the part of the patient? In this case, the portal of entry seems to be the pharynx. The tonsils are small, although the patient may have had a tonsillitis in the beginning. At all events, removal of the tonsil together with any infected crypts, would possibly assist in the elimination of future attacks.

Dr. W. A. Repp also outlined his method in preparing the field for operation and Dr. Plinn F. Morse demonstrated the technic of the Wassermann reaction and also the various staining methods of the *Spirocheta pallida*.

Acute Intestinal Obstruction

1. Digestive disturbances, with colic, following abdominal operations, should be treated with opiates and not by purgatives.

2. A suspected mechanical obstruction should never be treated or tested by purgatives by the mouth.

3. Under such circumstances the painful peristalsis should be quieted with opiates. Attempts to move the bowel should be made only with enemata.

4. Patients with suspected strangulation of the bowel, or with mechanical obstruction of any type that does not yield promptly to opiates, gastric lavage, purgative enemata and hypodermoclysis should be treated by section.

5. In all patients, except desperate cases that are operated on, a search should be made for the obstruction, provided no adhesions are present. This search should, if possible, start with the cecum, and should proceed up or down the gut, as determined by the flaccid or distended state of the cecum.

6. If the obstruction is not located after a brief search, enterostomy should be done at the lowest point in the distended gut that is practicable. This should be made by fastening in a rubber tube with sutures, after the manner of a Kader or Senn gastrostomy.

7. There is only one technical point that I wish to present. It concerns a plan I have used only once, myself, but it appeals to me as a good one. When resection is done for damaged gut and anastomosis is considered justifiable, use the lateral suture method, and establish gut drainage by fixing the proximal end of the gut in the operating wound or in a stab wound, after fixing a tube in it by two or three successive purse strings of catgut.

By this means the proximal bowel is given an outlet for its accumulations, and the suture is absolutely relieved from stress and strain due to distention of the gut. Spontaneous closure of the fistula is practically assured, since a portion of it is lined with peritoneum.—Barr, in *New York Medical Journal*.

Lumbar Puncture

1. Lumbar puncture is of great value from a diagnostic and therapeutic standpoint in other than true meningitis cases.

2. It has not yet received the endorsement it should have and it is not used as often as it should be by the general practitioner.

3. It is the only prompt and sure way to secure a positive diagnosis in cases showing suspicious meningeal symptoms, whether alone or accompanying some other disease.

4. Therapeutically, by relieving the brain pressure it is much more prompt and effective than drugs.

5. Many cases showing suspicious meningeal symptoms clear up almost at once after a lumbar puncture.

6. In the treatment of convulsions from any cause it is a remedy that is of great value.

7. Its technic is simple and it should be promptly and easily done by the general practitioner.—Wynkoop, *Archives of Pediatrics*.

The JOURNAL of the Michigan State Medical Society
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C. E. Boys	Kalamazoo	4th District
T. De Witt Gordon	Grand Rapids	5th District
C. B. Burr	Flint	6th District
Daniel Conboy	Bad Axe	7th District
B. B. Rowe	Saginaw	8th District
Robert E. Wells	Traverse City	9th District
F. E. Ruggies	Bay City	10th District
V. A. Chapman	Muskegon	11th District
E. H. Webster	Sault Ste. Marie	12th District
C. M. Williams	Alpena	13th District
Reuhen Peterson	Ann Arbor	14th District

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to Frederick C. Warnshuis, M.D., 91 Monroe Ave., Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

JULY

Editorials

THE FLINT MEETING

Elsewhere in this issue the reader will find a complete list of the hotels of Flint, and the accommodations they will be able to furnish for the members who will attend the annual meeting at Flint. In addition, there is given the address of the chairman of the committee who will provide all who write him with accommodations in private boarding and rooming houses that are first class. We would suggest that there be no delay in making your hotel or room reservations in order that the committee may be enabled to arrange and provide suitable accommodations for everyone.

The August number of THE JOURNAL will contain the preliminary program of the meeting and will be known as the Flint Number. The September JOURNAL will be mailed on August 25, and will contain the entire program for the two-days' meeting.

The efforts that are being put forth by the chairmen and secretaries of the various sections indicate that this meeting is going to be of exceptional value and a very profitable one to all who attend. The acceptance of the invitations extended to outside men to be present and read papers warrants us in making this prophecy. No member can really afford to miss this meeting.

The Flint profession is bending every effort and energy to make the visit to Flint one that is mingled with profit as well as pleasure, and that their guests may be provided with every comfort and facility. It is desired that their efforts in our behalf may be rewarded with a large attendance.

Many of the members will undoubtedly desire to drive to Flint in their automobiles. To facilitate such a trip the August number will contain a detailed description of the principal automobile routes to Flint. Garage accommodations will be provided for by the committee on arrangements, who will select an official garage. Meet your friends in Flint on September 4 and 5.

WASSERMANN TEST

This valuable test, while not a true specific biological reaction, has weathered the storm of criticism and numberless modifications until today it is considered an indispensable aid in serological diagnosis and guide in therapeutics.

The strongest ground for criticism was based on the fact that no true antigen for the test for the presence of syphilitic antibodies could be obtained.

From the large number of lipoid substances that will act favorably as an antigen, this criticism in a measure is correct. On the other hand, the clinical specificity of the test is daily proven and fills a most valuable link in the chain of diagnosis.

The complex technic of the original test led at once to numberless attempts to modify and simplify it. With all these modifications, the original stands preeminent, the principal value of the modifications being that of checking different steps of the original test.

A well-controlled, strongly positive Wassermann shows the presence of luetic infection with but few remote exceptions, while a weakly positive reaction is uncertain and the blood should be retested in doubtful conditions. Whether such reactions are the indication of by-gone infection or still active infection is still a subject under discussion.

However, the prevailing opinion regarding a positive Wassermann at any stage of the disease is that it indicates active lues.

The popularity of the test is steadily increasing and the percentage of positive reactions is also increasing. This is the direct outcome of more careful and skilful laboratory technic.

The aim to obtain a pure antigen from pure culture of the organism is now attracting attention, hoping to thereby perfect the test biologically. Experiments thus far have not proven this, and some investigators now believe there is no true antigen. The antigen now being successfully used in this test is combined antigen, composed of spirochaetae and pure lipoid substance. Therefore, the antibody-producing antigen of syphilis is a toxolipoid.

Through such a test we have been greatly assisted in not only obscure infections, but we are now compelled to examine the relations and associates of the infected person for further spread of the disease.

The assistance of the test as a therapeutic guide is of extreme value, providing an accurate estimation of two or more tests is obtained before any treatment is administered.

However, after treatment the test is of far less value unless a previous accurate estimation of the patient's resistance had been made, as all recognized medical treatment will alter the blood content, masking the original condition.

This test so utilized is of extreme assistance, and is gaining followers daily.

H. R. VARNEY.

HOTELS OF FLINT

Accommodations for the Annual Meeting, September 4 and 5.

Hotel Dresden, Official Headquarters, accommodations for 300, American. Rate $2.50 up.

Hotel Bryant, accommodations for 100, American. Rate, $2.25 up.

Hotel Reed, accommodations for 64, American. Rate, $1.25 up.

Hotel Crystal, accommodations for 62, American. Rate, $1.25.

Hotel Dayton, accommodations for 46, American. Rate, $1.25.

Chairman Hotel Committee, Dr. W. G. Bird, Flint.

In addition to the above hotel accommodations, members who desire a room in a first class private rooming house or private home may secure such reservation by addressing Dr. H. A. Stewart, Flint, Mich.

Members desiring further information may secure such information by either addressing the State Secretary or the Flint Committee on Arrangements, the personnel of which is: Dr. H. E. Randall, Chairman; Dr. C. B. Burr; Dr. J. G. Manwaring; Dr. H. A. Stewart; Dr. W. S. Bird; Dr. W. S. Knapp, Chairman of the Reception Committee.

THE FOURTH OF JULY

The "Sane Fourth" propaganda has become so fairly well established that the present time calls for but little comment. The ends attained and the value of the propaganda should not be lost sight of, on the contrary we should automatically apply the knowledge acquired and thereby lessen still more, if not entirely prevent the casualties that still occur in the present-day method of celebrating our national birthday.

"Love of country is a natural and praiseworthy attribute." The normal individual likes to give expression to it on this occasion in a spectacular and noisy fashion. Custom has established the method of manifesting this love in the form of firearms and fireworks, and we are somewhat loath to give up the recollections and joys of our boyhood days, which we vividly recall while assisting our own children in celebrating our nation's day of birth. Admitting that we find it difficult to reconcile ourselves to a "Fourth" without the firecrackers, pistols, cannons and fireworks, and granting that by reason of these early recollections we desire to perpetuate its noisy and explosive features, we also admit that the fearful aftermath of casualties of former years demand that we restrain our spirit of exuberance and limit our demonstration to those "noise-producing contrivances," whose use is less liable to be attendant with serious accidents.

The almost inevitable concomitant of Independence Day celebration—tetanus—takes its toll from those who have participated in celebrating the day with the dangerous explosives of former years. Many of these explosives have been either forbidden or rendered more safe. New contrivances equally as dangerous, and some of the older ones, still remain on sale, and as long as they are sold, accidents, more or less serious, and deaths will be recorded by the press on "the day after."

The list of fatalities will, however, be lessened and the death roll shortened if we but observe a little precaution and care in our treatment of these injuries. Antitetanic serum promptly used on the occurrence of suspicious injuries will minimize the fatality from this source. The loss of sight, or of a finger or limb can be obviated by discountenancing the sale of destructive agents by educational and publicity measures.

We urge the free and early employment of antitetanic serum and suggest that you make it a point to see that your druggist has an ample supply on hand for prompt use in the injuries resulting from the celebration of the nation's birthday.

THE CLINICAL THERMOMETER

Criticisms have oftentimes been directed against the clinical pocket thermometer of a physician as a conveyor of contagion and as being unsanitary by reason of the lack of attention that it receives after being employed in one case and before being used in the next one. These criticisms, due to the absence of definite measures to cleanse and sterilize it after each time that it is employed have arisen from the intelligent layman as well as from the physician and, we admit, rightly and justly.

The mere dipping in a glass of water and the wiping off on a clean towel or napkin does not render it clean or sterile—any more than would a similar procedure sterilize a scalpel that had been used to open an abscess—neither does such a process satisfy the requirements of those possessing more esthetic tastes.

We admit the pertinence of the criticism, but hesitate in endeavoring to point out a solution whereby the objections, yes and the dangers, may be overcome. The holders that have been placed on the market have proven unsatisfactory, as is evidenced by their lack of universal adoption. The suggestion that each family possess its own clinical thermometer—the best solution of the problem we know of at the present time—cannot be followed in every instance.

Admitting then the need of more careful and detailed consideration of this feature of our clinical work, THE JOURNAL is asking its readers to discuss this question and to describe their practice and to address their discussion and suggestions to the editor for publication in future issues. May we not have your view and suggestion?

GUY LINCOLN KIEFER, M.D., D.P.H.—A RECOGNITION

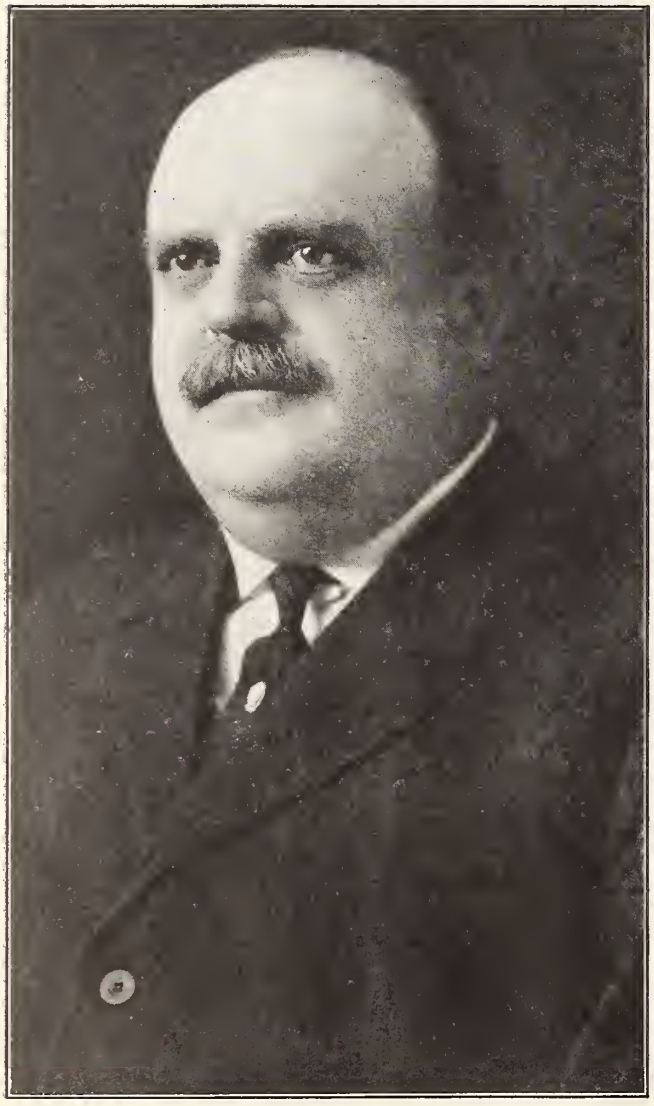
In the service of medicine and surgery there are definite branches which alone may properly challenge the entire thought and attention of any one man for the entire period of his life, and thus it is that practitioners of marked ability see fit to direct their course to specialties, perfecting themselves in knowledge pertaining thereto and the practical work implied. From among those whose activities have been thus directed in Michigan—we are proud that Michigan has a goodly number of such men—our attention is directed at the present time to Dr. Guy L. Kiefer of Detroit, who has, during the past month, tendered his voluntary resignation as Health Officer after having served Michigan's metropolis in that capacity for a period of twelve years. The influence he has exerted, the reforms he has instituted, the problems he has solved in public health matters, have been reflected throughout the entire state, and it is but fitting that at this time we should chronicle the more important achievements of his administration.

Believing as we do that such a résumé is but a fitting acknowledgement of the good he has accomplished not only for Detroit, but also for the entire profession of the state, and that this résumé, in addition to recording his work, will serve to stimulate others to achieve similar accomplishments.

When, in 1901, Dr. Kiefer accepted the position of Health Officer of Detroit, that board had but twenty-four employees and an annual appropriation of $31,352. To-day the Health Department of Detroit employs 189 persons, exclusive of hospital employees, and its annual expenditures approximate $240,000. These figures alone give one an insight into the magnitude of the department and the work that is accomplished, as well as demonstrating the executive ability that is demanded from the individual who assumes the directorship of its efficiency. The steady increase of population and the rapid growth of certain localities of the city by reason of the automobile industries has called forth the necessity of reorganization of the different departments, and one by one the Department of Vital Statistics, Contagious Disease, Milk and Dairy Inspection, Child Welfare and Department of Publicity and Public Instruction have been reorganized and their work rendered more efficient and capable of fulfilling the demands made on them by modern sanitary health requirements.

The municipal hospital at the present time is capable of caring for eighty cases of scarlet fever and diphtheria, eighty-five cases of tuberculosis and twenty cases of small-pox. There are under course of construction buildings which, when complete, will enable the department to render hospital care to three hundred and thirty-five persons suffering from contagious diseases.

The Child Welfare Department, which has for its particular duties the prevention of infant



DR. G. KIEFER

mortality and the following-up of sick school children, is a new innovation, the value of which has been satisfactorily demonstrated.

The Board of Health, through its Health Officer's recommendation and labors, has secured the enactments of many amendments to our health laws of the state and the sanitary ordinances of Detroit.

We might continue and enumerate many other lines of endeavor, and justice cannot be done to the subject of this article unless one recorded in detail the reports and recommendations of the Detroit Board of Health for the past twelve years. As an indefatigable worker, Dr. Kiefer has accomplished phenomenal results, and his activities have gained him a reputation that is not confined to his native city. In the state he has been called in consultation by those cities or communities that were confronted with crises in public health matters of their vicinity. In addition he has, whenever possible, accepted invitations to address various organizations and gatherings on topics germain to public health and sanitary regulations.

Nationally, he has appeared before the health organizations in the rôle of speaker, essayist and official. As chairman of the Section on Preventive Medicine and Public Health of the American Medical Association he presided at the Minneapolis meeting of that section. Possessor of a wide reputation as an authority on matters of health and sanitation his resumption of private practice will witness the retirement of a thoroughly efficient and capable health official—one whose career and labor may be pointed to with merited pride.

Recording then as we do his retirement from public and official life we are also happy in the fact that Dr. Kiefer is to remain in the state and devote his future time toward preserving his father's practice, which has been in the family for sixty-four years. The Board of Health of Detroit, in accepting his resignation, tendered him the position of consulting diagnostician.

THE JOURNAL extends to Dr. Kiefer its congratulations on having completed such a meritorious public career and at the same time conveys its best wishes for a long and remunerative private practice.

AN APPEAL

Of the fifty-nine county medical societies and twenty-one affiliated counties requested last April to send report to your Public Health Committee of work done or planned for the year 1912-13, but thirteen responded. Of these, six acknowledged no work done or planned (see STATE JOURNAL, May). During the last fiscal year the STATE JOURNAL has published reports monthly of the regular meetings of twenty-six societies which are doing most excellent work instructing the physicians, but no allusion to what each society is doing for the direct education of the other citizens of the state. We know indirectly that in

each of our larger cities there is united effort with the churches, schools, women's clubs and farmers' institutes, to convince the community that public health is individual wealth.

We fear there is a lack of awakened interest in the rural communities from which are derived the supply of milk, meat and all necessaries of life. It should be the aim of each division of public health work to arouse every citizen to the knowledge and prevention of contagious and infectious diseases; not alone of small-pox, tuberculosis, but scarlet fever, measles and especially typhoid fever, etc. With full knowledge of the cause of typhoid fever brought to each inhabitant, the way will be paved for pure water, effective sewerage, pure, clean milk and healthy food.

The physician in every community owes this knowledge to the people by whom he is surrounded.

Our new laws passed by the legislature this winter are excellent, but they need to be interpreted to the public in a manner they will heed.

This appeal is to every county medical society in the state, each to give an account of its public health work for the year, those who are doing much to point the way to those societies who are now doing special work in the direct line for public health.

At the state medical meeting in september, we hope to have a symposium and report from every county that each physician has added to the happiness and wealth of his community by his practical teaching on public health. Get busy; prevent typhoid fever and summer diseases among children in every community in our state.

FRANCES A. RUTHERFORD, M.D.,
Chairman, Public Health Committee.

VICTOR CLARENCE VAUGHAN, SENIOR

PRESIDENT-ELECT, AMERICAN MEDICAL ASSOCIATION

The House of Delegates of the American Medical Association conferred this honor on one of Michigan's most deserving members of the profession at its annual meeting held in Minneapolis, June 16-20.

THE JOURNAL extends to Dr. Vaughan its hearty congratulations and rejoices that this honor has been bestowed on one who has so deservedly merited it.

Dr. V. C. Vaughan, Sr., was born in Randolph County, Mo., on Oct. 27, 1851, and graduated from the Medical Department of the University of Michigan in 1878. He is a member of the Washtenaw County Medical Society, Michigan State Medical Society and the American Medical Association. He has been dean of the Medical and Surgical Department of the University of Michigan since 1890. In 1904 he served as president of the Michigan State Board of Health. He served in the Spanish-American War, taking part in the Santiago campaign. He was major and surgeon of the Thirty-Third Michigan Volunteers. In 1900 he was made surgeon-general of the Spanish-American War veterans. In 1908-1909 he was president of the American Physicians' Association. He is professor of hygiene and physiologic chemistry at the University of Michigan. In 1872 he received the degree of B.S. at Mt. Pleasant, in 1875 the degree of M.S. at the University of Michigan and in 1876 the degree of Ph.D. He is a member of the Association of Pathology and Bacteriology, the Society of Bacteriology, the American Physiological Society, the Association of American Physicians, the Michigan State Board of Health, the Society of Experimental Biology and Medicine, the New York Academy of Medicine, the Chemische Gesellschaft, and is an honorary member of the French and Hungarian societies of hygiene.

Physician, teacher, author, original investigator, indefatigable worker for those health measures that tend to the prevention of disease and the prolongation of the life of all humanity, beloved and honored by every member of our state society Dr. Vaughan's election marks another epoch in the history of the profession of the state and indelibly writes the name of another of Michigan's men on the nation's medical roll of fame.

THE NOMINATING SPEECH BY DR. E. T. ABRAMS OF DOLLAR BAY

Mr. President and Members of the House of Delegates:

We are standing to-day on the highest mountain peak ever attained by the American Medical Association. During the sixty-four years that have past and gone into history we can plainly discern certain peaks that lie down and beyond in that great mountain range of time. These stand out and mark certain epochs in the history of this Association. To-day, just as truly as in the past, on the present mountain peak we are writing an epoch in the history of the American Medical Association, and this afternoon in the closing hours of this house, the founders of this great organization, the greatest on the face of God's earth, are looking over the battlements of

heaven to approve the action of the American Medical Association and its work.

I have in mind a man who answers and measures up to the full traditions of the former presidents of the American Medical Association. I am not conversant with his ancestral history, I am not conversant with his church relationship, or his criminology (laughter), but I am sure, so far as he is personally concerned, he is a man of character, a man of ability, a man of energy, and if elected to the presidency of the American Medical Association by your votes today, will lead this Association to higher and nobler and grander work than it has ever done.

Gentlemen, I have the honor and very great pleasure, Mr. President, to nominate Victor C. Vaugham of Michigan (applause).

THE CANDIDATES AND THE BALLOTING

Five names were placed in nomination for the presidency, those of Dr. Victor C. Vaughan of Ann Arbor, Mich., Dr. W. L. Rodman of Philadelphia, Dr. W. N. Wishard of Indianapolis, Dr. John B. Deaver of Philadelphia and Dr. H. Bert Ellis of Los Angeles.

Four ballots were taken before Dr. Vaughan was declared the choice of the delegates. On the first ballot Dr. Vaughan was third on the list, with Drs. Rodman and Wishard in the lead. On the first ballot the vote stood: Wishard, 32; Rodman, 25; Vaughan, 24; Ellis, 17, and Deaver, 15. Dr. Deaver, the lowest man, was eliminated.

On the second ballot the vote stood: Wishard, 39; Rodman, 33; Vaughan, 27, and Ellis, 17.

On third ballot Dean Vaughan showed his strength, tying Dr. Wishard for first place. The vote was: Vaughan, 40; Wishard, 40, and Rodman, 36.

INTEREST IS TENSE

When the final ballot was being taken the interest grew intense. There was hardly a physician in the hall who was not keeping tally of the votes. First Dr. Vaughan would be in the lead a few votes and then Dr. Wishard would come up. Dr. Vaughan made a steady advance, however, and when the vote was counted he was ten votes ahead of Dr. Wishard. The final vote was: Vaughan, 63; Wishard, 53.

OTHER OFFICERS

Other officers were elected as follows: First Vice-President, Dr. W. P. Conway, Atlantic City, N. J.; Third Vice-President, Dr. Lillian South; Fourth Vice-President, Dr. Sol G. Kahn. Salt Lake City, Utah; Secretary, Dr. Alexander R. Craig, Chicago (reelected); Treasurer, Dr. William Allen Pusey, Chicago (reelected).

TRUSTEES ELECTED

The following new trustees were elected: Dr. W. W. Grant, Denver, Colo.; Dr. Frank C. Lutz, St. Louis, Mo.; Dr. Oscar Dowling, Shreveport, La., and Dr. Thomas McDavitt, St. Paul, Minn.

NEXT PLACE OF MEETING

Atlantic City was selected as the place for holding the 1914 Annual Meeting.

MICHIGAN MEMBERS IN ATTENDANCE

Abrams, Edward T., Dollar Bay.
Adame, R. W., Kalamazoo.
Adams, R. U., Kalamazoo.
Agnew, J. Howard, Ann Arbor.
Bachelder, Frank S., Pontiac.
Baeslack, Frederick William, Detroit.
Barth, Louis, Grand Rapids.
Bell, John N., Detroit.
Bird, William G., Flint.
Blanchard, F. N., Detroit.
Boulter, J. H., Detroit.
Boys, Charles E., Kalamazoo.
Bradley, O. H.
Brown, George Van Amber, Detroit.
Brown, John N. Elliott, Detroit.
Brunson, E. E., Ganges.
Buckland, R. S., Baraga.
Burdick, Austin F., Lansing.
Camp, Carl D., Ann Arbor.
Canfield, R. Bishop, Ann Arbor.
Carstens, J. H., Detroit.
Case, James T., Battle Creek.
Clarke, Homer E., Flint.
Cleland, James, Jr., Detroit.
Colver, Benton N., Battle Creek.
Connor, Ray, Detroit.
Cooley, Thomas B., Detroit.
Crane, Augustus Warren, Kalamazoo.
Crosby, John H., Plainwell.
Darling, Cyrenus G., Ann Arbor.
De Foe, W. A., Saginaw.
Dodds, John C., Detroit.
Edmister, Frederick, Detroit.
Eggleston, E. L., Battle Creek.
Emerson, Francis P.
Fenelow, M. P., Escanaba.
Ford, Walter D., Detroit.
Freund, Hugo A., Detroit.
Haass, E. W., Detroit.
Haggen, C. M., Detroit, 371 Twenty-First street.
Herrick, A. W., Bay City.
Hewlett, A. W., Ann Arbor.
Hickey, Preston M., Detroit.
Hirschberg, Frieda, Grand Rapids.
Hirschman, Louis J., Detroit.
Hitchcock, Charles W., Detroit.
Holes, J. J., Battle Creek.
Hornbogen, A. W., Marquette.

VICTOR CLARENCE VAUGHAN, SR.
President-Elect, American Medical Association.

Hume, Arthur M., Owosso.
Hutchinson, R. J., Grand Rapids.
Jackson, John B., Kalamazoo.
Jennings, Charles G., Detroit.
Johnston, Collins H., Grand Rapids.
Kane, David M., Sturgis.
Kiefer, Guy L., Detroit.
Knapp, Harry B., Ionia.
Larned, Ezra Read, Detroit.
Larned, F. J., Greenland.
Lescohier, A. W., Detroit.
Loranger, Philip J., Detroit.
McAlpine, A. D., Detroit.
McGregor, Robert, Saginaw.
McKean, Geo. D., Detroit.
McKinnon, John D., Calumet.
McLean, Angus, Detroit.
MacMillan, J. A., Detroit.
Macqueen, D. K., Laurium.
Martin, W. F., Battle Creek.
Mercer, R. E., Detroit.
Moloney, F. J., Sault Ste. Marie.
Moore, Geo. E., Ironwood.
Morse, Plinn F., Detroit.
Mortensen, M. A., Battle Creek.
Nelson, A. W., Battle Creek.
Noordewier, A., Grand Rapids.
Oakman, C. H., Detroit.
Odeir, Rudolph J. E., Cadillac.
Parker, Walter Robert, Detroit.
Parmeter, Rolland, Detroit.
Pierpont, David C., Ironwood.
Poppen, Henry J., Holland.
Potter, G. E., Detroit.
Robinson, A. L., Allegan.
Robinson, Fred W., Sturgis.
Rutherford, Frances A., Grand Rapids.
Schillito, Frederick, Kalamazoo.
Shurly, Burt R., Detroit.
Schmidt, Harry B., Ann Arbor.
Simpson, Clarence E., Detroit.
Smith, Richard R., Grand Rapids.
Stockwell, Glenn W., Detroit.
Swinton, Andrew L., Ontonagon.
Taylor, Wesley, Detroit.
Thompson, Louise Rosenthal, Grand Rapids.
Townsend, Fred, Sault Ste. Marie.
Urquhart, John H., Ironwood.
Vaughan, J. Walter, Detroit.
Vaughan, Victor C., Ann Arbor.
Vaughan, Victor C., Jr., Detroit.
Vandeventer, V. H., Ishpeming.
Van Zwaluwenburg, Jas. G., Ann Arbor.
Varney, H. R., Detroit.
Volmar, Maud J., Battle Creek.
Warnshuis, F. C., Grand Rapids.

THE IMPORTANT TRANSACTIONS OF THE HOUSE OF DELEGATES

The passing of certain amendments to the constitution and by-laws whereby every member of a county society becomes a member of the American Medical Association and every such member who pays an annual dues of $5 becomes a fellow of the American Medical Association.

The condemning of the evil secret fee-splitting and providing for the dropping from the membership roll of the association every member found guilty of this practice.

The appointment of a committee to arrange for a joint meeting of the American Medical Association and the British Medical Association.

The empowering of the Board of Trustees to provide for the erection of a suitable monument to commemorate the sanitary work accomplished by the men in charge of the sanitary and health work in connection with the building of the Panama Canal. Such a monument to be erected on the sight designated by the U. S. authorities.

The election of Samuel Hopkins Adams, to associate membership in recognition of his work in connection with the propaganda against the patent medicine evils.

Routine work and committee reports.

Michigan's four delegates were in attendance at every session of the House of Delegates.

THE SECTION MEETINGS

The section meetings were characterized by the high scientific standard of all the papers and the discussions were not only interesting but instructive and men did not hesitate to express their disagreement and differences of opinions. The section meeting places, in spite of two days of extremely humid weather, were always crowded with attentive listeners.

The meetings were all held in the various buildings on the campus of the University of Minnesota. The arrangements were ideal and the accommodations were ample.

The profession of Minneapolis and St. Paul left nothing undone in their work of entertaining the visiting doctors. The total enrollment was 3,759, and with the ladies the visitors entertained

was estimated at 5,000. Complimentary lunches were served to all at noon on the campus.

On Wednesday evening the Minneapolis physicians gave a reception and dance. On Thursday evening the St. Paul physicians gave a vaudeville and luncheon in the Auditorium.

The ladies were entertained at Lake Minnetonka on Wednesday, Lake Interlachen on Thursday, and with automobile rides on Friday.

Every departing physician had nothing but the kindest words for the whole profession of the "Twin Cities." This sixty-fourth session was unquestionably a most successful meeting.

Editorial Comments

THE Flint members of the profession are eager to have you attend the Annual Meeting, September 4-5. Comply with their desires and plan to go.

YOU will get out of your county society just what you yourself put into it. The trouble often exists in the fact that we are always looking toward having the other fellow do the work, while we personally feel disposed to sit back and enjoy the benefits without turning a hand toward bringing about better things. You are going to get out of your society just what you put into it, and if you are getting nothing you may rest assured that you are putting in nothing.

The fear expressed in an editorial in the March JOURNAL that Friedmann was evidently suffering from an "itching palm" was warranted when one stops to review the course that he has pursued since arriving in New York. The assigning of the American rights for the use of the serum to a corporation in return for a sum of money and stock in the new company justifies the charge of commercialism. The advice that "the profession assume a position of critical neutrality" is still applicable and to the point.

THE necessity of patronizing our advertisers is so important that we feel justified in addressing to our readers a little sermonette on this topic from month to month. We feel very strongly on this subject and unhesitatingly declare that it is your duty to patronize our advertisers.

These advertisers make THE JOURNAL possible. Without their support we would not be able to send you a publication one-half the present size. To secure advertisers it is necessary that they should be the recipient of our business; advertisements must bring returns, or else they will be discontinued.

Patronage extended to our advertisers means that other firms will be willing to insert their copy in our columns, and our reputation for being a valuable medium will become established in the advertising world. More advertisements means a larger, better and more valuable JOURNAL for each member—twice the present size if possible.

We guarantee our advertisers to you and urge very strongly that you consign your orders to them whenever and as often as possible. Do this if you desire a larger, more fully illustrated and interesting JOURNAL.

THE PUBLIC HEALTH PAGE is considered to be one of the important departments of this publication, and is worthy of careful perusal by every reader. The scope of usefulness of the physician to-day is not confined to the drug shop, the laboratory, the sick room or the hospital. It should take in that greater province of usefulness—the education of the public at large. The enlightening of the public as to what is required for the physical welfare of the babe in the cradle, the boy or girl in the school, and both when entering on life's duties is the larger field of usefulness toward which we should direct our efforts in addition to the other demands that are made on us for the alleviation and cure of the sick and distressed.

The history of our profession is filled with numerous incidents detailing the influence it has exerted in shaping the intelligence of the public so that they might, by a knowledge of Nature's laws and phenomena, better their hygienic and physical surroundings. The time has not yet arrived when we may rest on our oars and consider that we have imparted to the world at large all the information that is necessary for them to possess in order that they may be enabled to avoid the many pitfalls of disease and disaster. We have still to be aggressive and in order that our readers may be kept abreast with the developments in the field of public health measures, we have very fortunately been able to secure the collaboration of Dr. E. G. Dixon, Secretary of the State Board of Health, who will edit this department of THE JOURNAL. We are certain that it will contain many valuable points and suggestions.

THE medical profession of Indiana is in the midst of a state-wide "anti-fee splitting" agitation, which was precipitated through a letter from a leading surgeon published in *The Journal of the Indiana State Medical Society,* in which the evil was condemned in a very emphatic manner, and an invitation was extended to the medical men to publicly register their positions in the matter. That good will result from the publicity that is being given to the subject in Indiana is already apparent.

The attention that has recently been directed toward this commission evil is slowly but surely working out the solution of the problem, and we are encouraged to believe that the evil is gradually being abolished. This publicity will soon cause those who are guilty of the practice of dividing fees to desist from asking or demanding a "divvy."

Michigan cannot claim that its professional skirts are unbesmirched by the stigmata of this evil. It has existed in our midst as extensively probably as elsewhere. Some seven or eight years ago the the surgeons of Grand Rapids met, and after discussing the subject they drew up a statement condemning the practice and pledged themselves to not consent to a secret division of fees. In previous issues of THE JOURNAL the evils of this system have been discussed in a series of editorials. The Detroit members of the profession have taken a firm position, and he who gives, solicits or receives a division of a fee is expelled from the local society, and should the offender be a member of the staff of Harper Hospital his staff position is automatically forfeited.

Another desirable and progressive step has been taken toward abrogating this practice in Michigan in the securing of the amendment to our medical practice law which provides that the state board shall have the power to revoke the right to practice of any physician convicted of being a party to the division of fees.

The remedy thus provided makes it possible to purge Michigan of this nefarious practice. We are of the opinion that this state has, by this action, assumed the position at the head of the entire body of medical men in thus determinedly endeavoring to bring about a state-wide discontinuance of secret fee-splitting. We plead that an aggressive attitude be assumed in securing the rigid enforcement of this law.

THE perfection that has been attained in the manufacture of automobiles warrants us in stating that the physician's problem as to the selection of the best means of conveyance while making his professional calls is no longer a matter of debate or worry. The owner of an automobile is no longer required to crawl under his machine, and while lying on his back perform a laparotomy on its internal "viscera." Tire difficulties have also been very satisfactorily overcome, and one may start on his professional rounds or emergency calls with the assurance that he will "get there and back" without undergoing a mental turmoil or "brain storm," providing he observes two precautions in the care of his machine. These two essentials are: Fill your gasoline tanks every morning, and second, keep all the running and moving parts of the car well lubricated—do this methodically, not once a week or every two or three weeks, but daily. This lubrication should not be limited to the engine, transmission and differential housing, but should include every grease cup and oil opening.

An experience of eight years with several models of cars has convinced us of the essentiality of these two necessities, and has enabled us to obtain more service and mileage out of a car than many another owner of a similar make machine.

In regard to tires, the lesson learned has been: First, to keep them fully inflated—not by guessing as to the pounds pressure, but by means of a tire gauge, and second, to at least once a week seal up the small cuts and bruises in the tread with plastic cement, thereby preventing destruction to the fabric, which is the principal cause of blow-outs. By so doing we have been able to obtain 10,000 to 12,000 miles' service out of a tire, and have gone months without having a flat tire.

The attention thus given to the lubrication of the automobile and the care of the tires has permitted us to enjoy numerous trips varying from 100 to 2,000 miles each, with the greatest peace of mind and absence of worry. One car that has received this attention has gone 35,000 miles, and to-day is in first class running condition, and does not compel us to take anyone's dust or cause us to ponder whether it is nearing the time when it will meet the fate of the "Deacon's One Horse Shay."

One suggestion more and this comment on automobiles will be brought to a close. Avoid an attack of "tinkeritis." If you are already afflicted with this expensive ailment we would recommend a course of active treatment directed

toward securing your recovery. Such treatment should consist of the following measures: Have the car tuned up by a reliable mechanic — we admit that in some localities they are hard to find —stay away from the garages and repair shops when the car has been properly adjusted; lock up your tool box and throw your key away—all the tools that you really need are a pair of pliers and tire irons. True, there may be days when your car does not "hit them off as smoothly as before," but this is occasioned by atmospheric and climatic conditions, and does not call for readjustment. In an hour or two your motor will be running along in sweet "tune."

Barring accidents or unusual breaks, your trips to the repair shop should consist of two trips a year—spring and fall, when valves should be ground, worn piston rings replaced and bearing taken up. The life, utility, reliability and endurance of an automobile depends more on what one should not do than on the things one feels unaccountably disposed to do. Once they are properly adjusted, keep your hands off your carburetor, magneto, timer and valves, and less trouble and added enjoyment will fall to your lot. The exercising of a little judgment and discretion will obviate many unnecessary difficulties.

State News Notes

Dr. Roxie Bates has moved from Oak Shade to Morenci.

Dr. F. W. Sassaman of Charlotte has been appointed city health officer by the local council.

Dr. G. W. Nihart of Petoskey has been appointed city health officer by Mayor Reycraft.

Dr. A. M. Campbell has been appointed chief of the staff of the U. B. A. Hospital, Grand Rapids.

Dr. George M. Lochner has been selected as the new health officer of Adrian to succeed Dr. F. E. Andrews.

Dr. Rollin H. Stevens of Detroit was elected president of the Detroit Society for Sex Hygiene on May 24.

Dr. J. L. Walsh, who has for several years been practicing at Watersmeet and Bonifas, has located at Iron River.

Dr. Charles S. Lane of Whitmore Lake has located in Hudson and has rented offices in the Boies State Bank Building.

Dr. J. Everett King of Detroit announces the removal of his office to 355 Woodward Avenue, corner High Street, Detroit.

The Battle Creek papers announce the election of Dr. W. H. Riley as a fellow of the Royal Society of Medicine in London.

Dr. F. C. Kidner of Detroit addressed the annual meeting of the Homeopathic State Society at its Grand Rapids meeting.

At the annual meeting of the Grand Rapids Academy of Medicine Dr. J. D. Brook was elected president and Dr. A. V. Wenger, secretary.

Dr. J. G. R. Manwaring of Flint tendered his resignation as a member of the Flint Board of Health and is succeeded by Dr. F. A. Roberts.

The Forward Movement Association of Saugatuck is planning to build a sanatorium for the charitable treatment of crippled children and feeble adults.

The hospital board of the Newberry State Hospital has appropriated $85,000 for the erection of new buildings and other improvements of that hospital.

The "Books Reviews" are worthy of your perusal. The opinions therein expressed by the reviewers may be relied on when purchasing new works for your library.

Dr. Edward T. Abrams of Dollar Bay delivered the address to the graduating class of the Detroit College of Medicine. Diplomas were granted to twenty-seven graduates.

Dr. I. N. J. Hotvedt and Dr. Jacob Oosting of Muskegon attended the Clinic Week of the Detroit College of Medicine. They drove from Muskegon to Detroit in their automobile.

The next annual meeting of the Michigan State Anti-Tuberculosis Society will be held in Kalamazoo in November. The annual meetings have formerly been held at Ann Arbor.

Dr. C. T. Southworth of Monroe spent the month of May attending the clinics of New York City. A week's stay at Atlantic City was made before returning home the first week in June.

Dr. A. H. Blackburn and Dr. F. G. Gilbert, 1913 graduates of the Vanderbilt University, have entered in on their duties as interns in the Butterworth Hospital, Grand Rapids.

After a lapse of two years during which he has devoted himself to the automobile industry, Dr. Wadsworth Warren of Detroit has resumed practice with offices in the Washington Arcade.

The Kent County Medical Society at its meeting on May 28 voted to instruct its delegates to extend an invitation to the state society to hold its 1914 annual meeting in Grand Rapids.

Dr. G. L. McBride was elected chief, Dr. R. H. Spencer, vice-chief, and Dr. Ralph Apted, secretary of the staff of Butterworth Hospital, Grand Rapids, at the annual meeting held June 2, 1913.

Drs. C. E. Boys, A. W. Crane, H. Ostrander and R. E. Balch of Kalamazoo attended the May 14 meeting of the Kent County Medical Society which was addressed by Dr. Paul Pilcher of Brooklyn, N. Y.

Through the generosity of Mr. and Mrs. Eben Pennock, two of the oldest residents of Barry County, the city of Hastings will be prvided with $20,000 for the erection of a hospital to be known as the "Pennock Hospital."

Dr. Nihart of Petoskey and Dr. J. L. Burhart of Big Rapids were callers at the secretary's office during the week of June 3. A cordial invitation is extended to every physician when in Grand Rapids to pay us a visit.

Senior Surgeon H. W. Austin, United States Public Health Service, has been assigned to duty at the U. S. Marine Hospital, Detroit, relieving Surgeon C. H. Gardner, who goes to Buffalo. Dr. Austin is a University of Michigan graduate.

The current reports that the amendments to the medical practice act, as published in the last issue of THE JOURNAL, have been declared unconstitutional are unfounded and incorrect. The amendments become effective ninety days after their passage.

Dr. Guy L. Kiefer, health officer of Detroit, spent several days in Alpena during the latter part of May and acted in an advisory capacity to the Alpena health officials in their campaign for a healthier city. He also addressed the Alpena County Medical Society on, "Preventive Medicine."

Plans for the development of the Detroit College of Medicine were discussed by the alumni at their last annual meeting. It was there announced that one-third of the $1,000,000 endowment fund is pledged. The alumni association has also raised funds for eleven scholarships of $250 a year.

Dr. W. J. Wilson, Jr., of Detroit sailed from Boston on June 12 for Naples. He expects to visit a number of the hospitals on the continent before attending the International Congress of Medicine in London. While in London he has arranged to do some work in diseases of the heart under the direction of Dr. James Mackenzie.

The following is a list of the new officers elected by the alumni of the Detroit College of Medicine at its last annual meeting: honorary president, Dr. C. G. Jennings; president, Dr. F. N. Blanchard, Detroit; vice-president, Dr. J. S. LaBelle, Windsor; secretary-treasurer, Dr. R. L. Clark, Detroit; trustees, Dr. George E. Potter and Dr. Walter J. Wilson, Jr.

The supreme court of Michigan has affirmed the conviction of Dr. C. J. and J. D. Kennedy, known as "Drs. K. and K.," who were fined $100 each in Detroit police court on charges of exhibiting an indecent museum in connection with their office. They appealed to the recorder's court and the conviction was upheld there. Then they carried their appeal to the supreme court.

Recent tabular statistics, published in *The Journal A. M. A.*, show that Michigan medical graduates are at least 10 per cent. better in their technical preparation than Harvard graduates, and 5 per cent. better than Johns Hopkins graduates. Statistics showing the result of state board examinations give the graduates of both of Michigan's medical schools a very creditable standing.

Governor Ferris has appointed the following as members of a commission authorized by the last legislature to purchase not less than 1,000 acres of land in Michigan and to establish thereon buildings and to organize the Michigan Epileptic Farm Colony. An appropriation of $200,000 is at the disposal of this commission for these purposes: Thos. Gordon, Jr., Howell; Henry S. Hulbert, probate judge, Detroit; Dr. R. L. Dixon, Lansing.

Sixteen of the twenty trustees proposed for the reorganization of the Detroit College of Medicine were elected at a meeting of the subscribers on May 15. These sixteen trustees are: Drs. J. H. Carstens, C. G. Jennings, Angus McLean, B. R. Shurly, Frank B. Walker and Messrs. J. B. Book, H. M. Campbell, Emory W. Clark, Edwin S. George, David Gray, Henry B. Joy, A. L. Lewis, S. T. Miller, Charles Moore, J. H. Walker and W. C. Williams.

Our attention has been called to an error that occurred in the article in the *Public Health Department*, page 349, June number. The article as printed reads: "We furnish . . . platinum foils . . . for sending blood. . . ." The word aluminum should be substituted for the word platinum. In calling our attention to this error Dr. Holm writes: "As a state department we are often criticised and accused of extravagance. Please correct the statement as it looks bad to the taxpayers."

Dr. D. S. Sinclair of Grand Rapids was elected president of the Homeopathic Medical Society of the State of Michigan at their forty-fourth annual meeting held in Grand Rapids on May 20. Dr. Sinclair is a member of the Kent County Medical Society and of the Michigan State Medical Society.

Action was taken at this meeting whereby the *Homeopathic Observer*, a publication issued by the faculty of the homeopathic department of the state university, was designated as the official publication of the society.

The commission authorized by the last legislature to make a survey and to investigate the extent, distribution and causes of feeble-mindedness in the state of Michigan has appointed Dr. W. H. Crane of Ann Arbor, as chief investigator. Dr. Crane is a well qualified man for this work, having had a great deal of experience along the lines of sociology, psychology and psychiatry. He will be assisted by at least three field workers, including Miss Adele McKinnie, who did work on this subject under the supervision of the State Board of Health, last year.

Deaths

Wilson, Clarence B., M.D. University of Michigan, 1890. Following a brief illness (complicated abdominal trouble), died at his home in Bradford, Vt., May 31, 1913, aged 47 years.

Holt, Charles H., M.D. University of Pennsylvania, 1882, member of Kent County Medical Society, Michigan State Medical Society. Died of apoplexy at his home, 103 Mt. Vernon Street, Grand Rapids, June 2, 1913, aged 59 years.

Sweet, Charles A., M.D. University of Illinois, 1887; member of the Charlevoix County Medical Society and Michigan State Medical Society. Died at his home, East Jordan, May 4, 1913, after an illness of several years; aged 53.

Stone, David F., M.D. Toronto University 1870, member of the Bay County Medical Society, Michigan State Medical Society, American Medical Association. Died May 16, 1913, at the home, 1715 Center Avenue, Bay City, following an illness of several years duration (paralysis agitans), aged 70 years.

Shurly, Ernest D., M.D. University of Buffalo, 1886; a member of the Wayne County Medical Society, Michigan State Medical Society and the American Medical Association; one of the founders and emeritus professor of laryngology and clinical medicine in the Detroit College of Medicine; President of the Michigan State Medical Society in 1898; member of the American Laryngological Association; formerly acting assistant surgeon in the Army with service in the Indian campaigns and the Yellowstone Expedition; a pioneer in the fight against tuberculosis; founder of the first tuberculosis camp in Michigan at Eloise; a specialist in the diseases of the nose, throat and chest, and author of standard works in his specialty; for many years chief of staff of the Harper Hospital and a member of the staff of St. Mary's, St. Luke's and Woman's hospitals; died in Harper Hospital, Detroit, after but a few hours illness, May 10, from heart disease, aged 67.

JESSE EARL WILSON, M.D.—1829-1913 *

BY M. W. GRAY

The decease of a physician who has successfully practiced his profession in one community for many years is an event worthy of more than formal record; but the death of one who had, for nearly sixty years, been foremost in his profession and a leading, public-spirited citizen, is a bereavement to many, a distinct loss to all within the sphere of his activities, and removes from society a force which cannot well be spared. That this is true was revealed and emphasized when the life of Dr. Jesse E. Wilson of Rochester closed and was attested by the universal expression of esteem and grief, and the many who mourned as though suffering a personal and irreparable calamity.

Born near Quebec, Canada, Jan. 31, 1829, Dr. Wilson was the son of Jeremiah Wilson, a Methodist minister. His parents were both American born, his mother's maiden name being Bailey. After adequate preparatory education he pursued his medical studies at the University of Michigan, Bellevue Hospital Medical College and Castleton Medical College, Castleton, Vt. He received the degree of doctor of medicine from the last named institution in 1855, located in Rochester, Mich., the same year, where he lived and practiced his profession until his death which occurred March 7, 1913. He married Susan Annette Richardson who died about thirty years ago.

When the village of Rochester was first organized in 1869, Dr. Wilson was elected its first president. He was continuously a member of the Board of Education forty-one years, forty years of the time being president of the board. He also filled many other offices of honor and trust.

He was formerly a prominent member of the Michigan State Medical Society and the Northeastern District Medical Society of Michigan. At the time of his death he was an honorary member of the Oakland County Medical Society.

The Rochester *Era*, in an obituary notice, said:

"To those with whom he came in contact in his professional work, his death brings keen sorrow. For long years many had looked to him for aid in their suffering, for advice and comfort in their deepest sorrow, when life seemed threatened and uncertain, and he never had, failed them. To such the place of Dr.

* Read before the Oakland County Medical Society, June 5, 1913.

Wilson will be hard to fill and his memory will be kept green by the remembrance of his sacrifice and devotion to the saving of human life."

The biography of Jesse E. Wilson is nearly paralleled by that of his twin brother and coworker, Dr. Jeremiah C. Wilson, who came to Rochester in 1857. From this time the lives of Drs. Jesse and Jere, as they were familiarly and affectionately called, until the death of the latter in 1906, were as much alike as it is possible for the lives of two men to be.

Society Proceedings

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held May 20, 1913, at the Alpena House, Alpena. Dr. C. M. Williams was the host of this occasion, Dr. Guy L. Kiefer of Detroit being the guest of honor. Those present were Drs. McKnight, Secrist, Dunlop, Bell, Cameron, Komoraski, Gauvereau, Leo Secrist, Small, Bertram, Bonneville, McDaniels, Williams.

Following the dinner the meeting adjourned to the Temple Theater, where Dr. Kiefer delivered a public lecture on "The Prevention of Disease." The lecture proved most instructive to the members of the society and very interesting to the general public. By reason of this lecture public health sentiment in Alpena has been greatly raised.

C. M. WILLIAMS, Secretary.

CALHOUN COUNTY

The Calhoun County Medical Society held its second quarterly meeting at the home of Dr. R. M. Gubbins in Ceresco, on Tuesday afternoon, June 3, with about twenty-five members present, besides several guests.

The usual business program was followed, during which two new members were elected, viz.: Robert V. Gallagher of Battle Creek and Maurice S. Gibbs of Eckford.

The scientific program was unusually interesting and instructive. Dr. Arthur R. Elliott of Chicago was present and delivered an able address on the subject of "High Blood-Pressure," treating the subject in an unusually pleasing and able manner. "The Value of Routine Examinations in Urological Cases," was the subject of a valuable paper by Dr. W. F. Martin of the Battle Creek Sanitarium. The latter paper will appear in a subsequent number of THE JOURNAL, and it is to be regretted that Dr. Elliott's address had not been so arranged as to permit of publication.

After the program, all present partook of a most sumptuous repast provided by Dr. and Mrs. Gubbins, "Under the Pines," at their residence.

A. F. KINGSLEY, Secretary.

GRAND TRAVERSE-LEELANAU COUNTY

Unusually interesting papers and discussions have increased the attendance at the regular meetings of the Grand Traverse-Leelanau County Medical Society the June meeting, held June 11, 1913, at Traverse City, being the largest this year.

Dr. G. W. Fralick reported an exceedingly interesting case of trichinosis in one of his patients. Another unusual case, one of kleptomania in a youth, was presented in a very interesting form by Dr. W. D. Mueller.

The society was so fortunate as to have as its guest Dr. Otto T. Freer, who spoke briefly on the advantage of a public medical library.

JAMES J. HALL, Secretary.

HOUGHTON COUNTY

The regular monthly meeting of the Houghton County Medical Society was held Monday evening, June 2, 1913, at the Scott Hotel, Hancock.

Dr. R. E. Wiley of Calumet gave a most interesting paper on "Anterior Poliomyelitis." The doctor gave a review of this disease from the days when it first became known down to the present day research that is being done so extensively. A good discussion concerning the possible modes by which the disease is transmitted, followed. Hardly a physician was present but had some of these unfortunate cases to report. Emphasis was laid on the physician's untiring efforts by means of the faradic and later the galvanic current in restoring the use of the muscles. Cases apparently hopeless, were finally restored to almost normal function, whereas others seemed to show no improvement, however judicious the treatment followed.

Dr. W. E. McNamara of Trimountain presented the next paper, "Transfusion of Blood." By means of charts the doctor showed the method used in this operation and the necessary instruments employed. Dr. McNamara reported five interesting clinical cases. One case was that of a hypernephroma in a woman in which the hemorrhage had been so profuse as to render operation hopeless. Transfusion was performed and later the operation for removal of the kidney was successfully performed. Another case was one of placenta previa in which all means to restore the woman were of no avail until transfusion was done, after which the patient made a good recovery. In a case of typhoid with hemorrhage, the patient was unconscious and the operation performed without local anesthesia. Before the operation was completed the patient spoke intelligently; patient lived eight days but finally died from further hemorrhage. Dr. McNamara does not advise resorting to transfusion as a routine measure, but thinks that the patient should be given this chance when other methods have failed.

This meeting was in the nature of a farewell to Dr. McNamara, who has been an active member since coming to this country. Dr. McNamara is to locate at Lansing, in company with Dr. Earl Ingram Carr, also of the Copper Range staff of physicians.

The meeting was adjourned to the banquet room and a good time enjoyed.

ALFRED LA BINE, Secretary.

KALAMAZOO ACADEMY

Program—Tuesday, May 13, 1913, 1:30 P. M., Academy Rooms, Public Library

BUSINESS MEETING—PAYMENT OF DUES

1. Report of Local Medicolegal Committee, Dr. Paul T. Butler, Kalamazoo, Mich.
2. "Law of Liability Pertaining to Physicians," Mr. Dallas Boudeman, Kalamazoo.
3. "Michigan Plan of Medical Defense," Dr. F. B. Tibbals, Detroit, Mich.

Practical Points in a Paper—"Some Observations in Anesthesia"—by Dr. J. B. Jackson, Kalamazoo

BEGINNING OF ANESTHESIA

Elimination of loud talking, laughing, discussion of operations, joking and story-telling about an anesthetic room during first stage of anesthesia.

Win the confidence of your patient. Deliberate and thorough examination of mouth, chest and general condition of patient helps to do this. Explanation of what will occur and what patient may expect and a weak vapor, more air than anesthetic, will reduce the struggling and resistance and fear to a minimum degree. Patient should blow out instead of taking deep breaths.

COURSE OF ANESTHESIA

Remove excess clothing, especially heavy shoes and hair-pins. Handle patient gently. Constant pressure on angles of jaw causes much discomfort subsequent to anesthesia.

Paralysis of muscles of lower arm sometimes occurs when arms are allowed to hang over table. Prolonged Trendelenberg position is bad for patient.

Insensibility to pain and relaxation of muscles are all that is necessary to obtain an anesthesia. Toxic conditions arise when anesthesia is profound; also in throat work, saliva and blood may be more easily breathed into lungs. Vapor through a tube is very helpful in throat work.

CHOICE OF ANESTHETIC

Chloroform is most efficient to control pain in obstetric work, but when any surgical procedure is required in obstetric work ether is indicated. Some claim that ether is more irritating than chloroform; when ether is administered in vapor form, heated, it is not so irritating.

Medication: Gas and oxygen anesthesia are more satisfactory when morphin and hyoscin are administered before anesthesia. This method of anesthesia is pleasant, quickly produced and has apparently no toxic effects. It is expensive, and sometimes does not produce complete relaxation, except when medication is given beforehand.

Requirements for machine for administration of gas and oxygen are: First, an even, constant flow of the two gases without variation in the pressure; second, a single, easily regulated valve for accurately controlling the mixture; third, a simple, reheating apparatus; fourth, a mask that fits the face in an air-tight manner.

Facts Emphasized by Dr. John Ridlon in His Paper on "Etiology and Treatment of Hip-Joint Diseases"

Chronic hip-joint disease is primarily tuberculosis of joint. Tubercle bacilli may not be found. Patient may have limped but little for six months, but an x-ray plate shows extensive disease. Velvety appearance of head and socket and greatly enlarged. Details of head and socket destroyed. Mobility greatly reduced.

Patient limps because of the limited range of motion backward. Greater flexion, outward rotation, abduction, and apparent lengthening.

Limp is a restriction of action in all directions; when movement is free in all directions, not hip disease.

Atrophy of thigh and calf muscles next; in all cases of few weeks. Lengthening can only occur by destruction of joint.

Measurement to ascertain lengthening should be from anterior superior of ilium to internal malleolus. To measure from umbilicus to malleolus detects false shortening only. Fifty to 60 per cent. of limbs not equal in length—difference of one-half inch.

PAIN

Pain is felt in knee—distant pain, not local pain. Change of position at night gives rise to night cries. Tenderness about joint is a later manifestation, with joint abscess.

DIFFERENTIAL DIAGNOSIS

Confusion with Potts' disease. Lumbar disease—action of hip-joint free in all directions. Hip-joint disease mistaken for disease of sciatic nerve.

Saco-iliac Disease: Flexion deformity and restriction limited, but soon passes away.

Coxavara: Destruction of line between great trochanter and hip-joint. This occurs in fat people; boys with large hips—breast and sexual organs greatly reduced to those of a boy of 3.

CONGENITAL DISLOCATION

Greater than normal motion, restriction to rotation. Feel head of femur out of acetabulum.

INFANTILE PARALYSIS

Hip-joint movements more loose than normal.

Treatment: (a) Forceful correction. (b) Coaxing correction.

Mobilize hip traction with ten-pound weight over pulley on a board that is fixed, in direction of deformity. Plaster splint from ankle to nipple in position of deformity; reconstruct and correct deformity as much as possible every two to four weeks by reapplication of plaster splint until deformity is corrected. Plaster splint should be made with plenty of plaster, no cavities, no holes, no wrinkles, uniform thickness. When pain and tenderness disappear, patient may go on crutches with tall shoe on sound limb. Mechanical brace can only be applied by correct measurements and great deal of manual dexterity. Plaster splint is more simple. Bier's treatment and tuberculin condemned.

Clinical work at hospitals on April 22, last regular meeting: Perineorraphy, pelvic abscess, salpingitis with hernia, appendectomy, cysto-meningocele, decission of congenital cataract.

C. B. FULKERSON, Secretary.

KALAMAZOO ACADEMY OF MEDICINE

The regular meeting of the Kalamazoo Academy of Medicine was held June 10, 1913, at the academy rooms in the public library. Following several interesting case reports, Dr. A. E. West of Kalamazoo read a paper on "Routine Examination of the Urine." The discussion of this paper was opened by Drs. Hudnutt, Crane, Perkins and Shepard. Dr. L. H. Stewart of Kalamazoo presented a paper on "The Surgical Complications of Gall-Stones." Drs. Balch and Robinson opened the discussion which followed.

C. B. FULKERSON, Secretary.

KENT COUNTY

The Kent County Medical Society held its regular meeting at the Board of Commerce Chambers, Grand Rapids, on Wednesday, May 28, 1913.

Dr. A. M. Campbell demonstrated on a living dog, Soresi's method and technic for performing end-to-end anastomosis. This method is one that has been given publicity within the last few months, and is to be recommended for its simplicity and the short time necessary for its performance.

Dr. Ralph Apted gave a short talk on the "Present Status of the Alleged Tuberculosis Cure of Friedmann." This talk was followed by a general discussion, in which a number of the members participated.

The following case reports were given: "Four Cases in which Decompression Has Been Performed," by Dr. F. C. Warnshuis; Some Cases of Angina Pectoris," by Dr. J. B. Whinery; "Demonstration of Recovery from a Broken Back," by Dr. F. C. Kinsey; "A Case of Angina Pectoris," by Dr. Eugene Boise.

E. W. DALES, Secretary.

MECOSTA COUNTY

The Mecosta County Medical Society met on the evening of April 15 in the Club Rooms, with sixteen members and guests present. Papers were read as follows: "The Open Treatment of Fractures," by Dr. F. C. Warnshuis, Grand Rapids; "Medical Wit and Humor," by Dr. F. J. Groner, Grand Rapids. Both papers were well received and followed by interesting discussion. Dr. J. L. Burkhart demonstrated the working of a new vibratory machine. The meeting was followed by a supper and a short impromptu program at Theo Sellas & Co.'s Café.

C. F. KARSHNER, Secretary.

SAGINAW COUNTY

The regular meeting of the Saginaw County Medical Society was held in the mayor's office in the city hall, May 27, 1913. The program consisted of the following symposium: "Remarks on the Subject of the Evening," Dr. Robert McGregor; "Legal Aspects of the Sterilization Law," Senator G. L. Weadock; "Social and Psychological Aspects of the Sterilization Law," Dr. C. W. Mack, Pontiac State Hospital; "Surgical Aspects of a Sterilization Law," Dr. E. B. Smith, Detroit. Dr. Flynn, Bay City, was present and took part in the discussion. There was an unusually large attendance. The papers proved most interesting, the subject of a sterilization law being splendidly presented from the several viewpoints.

A. R. MCKINNEY, Secretary.

WAYNE COUNTY

The Wayne County Medical Society was called together for a special meeting by the vice-president, Dr. L. J. Hirschman, Monday night, May 12, 1913, at the Medical Building. Dr. Carstens spoke a few words in memory of Dr. E. L. Shurly, who has recently passed away. Dr. J. E. Clark spoke of his memories of Dr. Shurly, whom he had known for thirty-five years and held in the highest esteem. Dr. Robins moved that a committee of three be appointed to draw up resolutions on the death of Dr. E. L. Shurly. Seconded. Carried. Drs. Carstens, Robbins and Longyear were appointed. Meeting then adjourned.

The general meeting was followed by the regular meeting of the medical section. Dr. Hugo Freund, chairman; Dr. J. H. Dempster, secretary. The program, a symposium on Vaccine Therapy, etc., was upheld by Dr. G. H. Sherman, who read a paper on bacterial vaccine for the general practitioner. He advocated the early use of vaccine. Owing to the frequency of the various infections the speaker thought the employment of vaccine therapy should be more general than at present. "That bacterial vaccines are useful remedies which may be extensively applied is now generally admitted, and if the general practitioner aims to render the best service to his patient he should avail himself of their use." The physician should acquaint himself with the fundamental principles of immunization and familiarize himself with the use of vaccines. The importance of their early use was strongly emphasized. The great importance of vaccines as immunizing agents was mentioned.

DISCUSSION

Dr. George McKean stated that he was a user of vaccines and there was no question as to their use. There certainly was no question as to the prophylactic use of typhoid vaccine. He thought the number of typhoids would be less if prophylactic doses were administered more frequently. The speaker thought the early use of vaccine in puerperal sepsis a good thing. When you cannot produce another immunity with your vaccine, then is the time to secure a passive immunity with your serum.

Dr. A. P. Biddle stated that his experience consisted in the use of vaccines in special cases. He thought the mistake made was in not properly selecting the cases. Great harm had been done by indiscriminate use of vaccine. He thought vaccines as a routine treatment should be discouraged.

Dr. Robbins claimed that vaccines were of doubtful value in gonorrheal infections. There was no benefit in the acute cases. In some of the complications of gonorrhea they were reputed to be of great value. He would not object to the treatment by vaccines, provided the deep urethra were treated by other means.

Dr. Stafford claimed that the tried-out forms of treatment should be used in conjunction with the vaccines. Vaccines to be of use must be used early.

Dr. W. J. Wilson, Jr., cited a case of "gonorrheal bubo" which showed a marked reaction on a minimum dose which eventually cleared up.

Dr. Sherman closed the discussion.

The Wayne County Medical Society held its regular meeting May 19, 1913, with the president, Dr. Haass, in the chair; Dr. R. L. Clark, secretary.

The paper of the evening was read by Miss Charlotte A. Aikens on "Economy and Efficiency in Nursing in Families of Moderate Means." The families considered are those whose incomes run from $60 to $120 a month. The poor families are cared for by district nurses and the rich can pay the fees of trained nurses. This leaves uncared for a large class of the people who do not ask charity and do not want it. This drives many from the middle classes into the hospital, which, with proper nursing, could be cared

for in their homes. This multiplies nurses and adds to the competition in the nursing field.

The care of the sick as a whole has not been approached with a statesman's vision. The more cases which can be handled in dispensary and home will help to relieve the hospital. The whole problem must be met and studied in a business-like way. The nurse must be fitted to the requirements of the home. The hospital should only have the care of such cases as cannot be cared for in the home. There must be household nurses who will not be above doing some of the household work as well as care for the invalid in the home. These need not spend three years in learning to do things which they can never do in middle class households.

In several communities a system has already been developed in the caring of sickness in the home and the home in case of sickness. The organization determines what the case needs, whether a trained nurse or less trained assistance. They may need a trained nurse for a short time and then something less. This has been worked out at Brattleboro, Vt. Nurses should be of at least three grades: First, registered nurses with three years' training; second, certified nurses with one year's training, and household nurses who will help with household duties as well as the care of the sick. The small and special hospital, while not equipped to give full training, can give the essentials for household nurses.

The discussion was opened by Dr. J. N. E. Brown. A study of the needs of Toronto doctors showed a large proportion of their patients were in moderate circumstances and unable to employ trained nurses for any length of time. They suggested that nurses in training might be sent out into homes for a less fee than the graduates charge. This gives a chance for nurses to get a training in the home as well as in the hospital. Mr. Bradley of Boston is willing to help establish a nursing bureau in Detroit to furnish nursing to the middle classes of the city.

Dr. W. L. Babcock spoke on the practicability of training household nurses. The field for these workers is distinct from trained nurses. How, then, can these be trained? Nurses who train in special hospitals, insane hospitals, etc., might be utilized for those who need nurses at from $10 to $16 a week. The organization which has charge of such workers must have resources to recompense them adequately. The poor commission, rich people, factories and the like may help to make up the deficiency.

The workers are not all of a kind and command various wages.

A maternity nurse should not require more than a year's training. A good medical nurse ought to be well trained in two years, while a good surgical nurse should have at least three years. The hospital ought not to take charge of the training of the nurse in the home, although they should be willing to cooperate in this training.

Dr. Carstens spoke in favor of having obstetrical nurses, but has found that these soon attempted other things. Household nurses should be supplied who can be had for $8 to $10 a week.

Dr. Bell spoke of the need of the middle classes for nursing for a long period. They can stand this for a short time. Dr. W. J. Wilson spoke of the inability of the patient to pay both doctor and nurse, and hence no nurse is employed. The Wayne County Medical Society would be willing to co-operate with Mr. Bradley's scheme. Dr. Hirschman advocated the getting away from charity. Some sort of an insurance might be worked out to guarantee nursing during sickness to those who need it.

The following officers were elected for the ensuing year: President, L. J. Hirschman; vice-president, D. M. Campbell; secretary, R. L. Clark; treasurer, F. B. Tibbals.

R. L. CLARK, Secretary.

County Secretaries' Department

PLEASE do not forget to put this office on your mailing list and thus send us a copy of the notices of your meetings.

HAVE you notified the member in arrears with his dues as to what he is foregoing by allowing them to remain unpaid?

THE JOURNAL is desirous of publishing the report of every county society meeting. May we not have your report for the August number? We also want you to send us for publication the best papers that are read at your meetings. We can always use original articles.

THIS department is still awaiting for your individual opinions regarding organization work and your discussion of the problems that confront the county society. This is an open forum and you are invited to utilize this space either for imparting or securing information.

THE August JOURNAL will contain the preliminary program of the County Secretaries Association meeting at Flint, on September 3. If you have any suggestions to make regarding this meeting please communicate with the secretary of that association, Dr. C. T. Southworth, Monroe, Mich.

JUST as soon as the work preparatory for the annual meeting is cleared up we intend to visit every one of our county societies, and by so doing will become better acquainted with the various officials and members, and with the benefit of this acquaintance we anticipate that we will be better enabled to be of assistance to them in our organization work.

THE members of the Calumet County, Wisconsin, Medical Society are certainly "Night Hawks." One of their recent meetings was held at 10:30 p. m. and at 2 a. m. they adjourned to the dining-room of the hotel in which their meeting was held and "partook of coffee and luncheon," and in the words of their secretary: "The doctors left for their homes, having spent a pleasant and profitable evening." ? ? ?

WE will greatly appreciate your reporting the names of any of your members who are not receiving THE JOURNAL each month. Every member in good standing is entitled to THE JOURNAL and we desire that he receive it regularly. Permit us to also remind you to promptly report all removals and deaths. This cooperation will enable us to keep the records of the office properly corrected to date.

IF you have any men in your county who are non-members and are bound to be knockers, induce them to knock on your society door for admittance, and after admitting them proceed to show them that that knock—which should be the last one—was the best knock they ever made, and that their "little hammers" are to be retained only as a souvenir by which they may remember the folly of their erstwhile attitude during their preconverted days. Turn the *"Knocker"* into a *"Booster."*

"THE medical society is the continuation school of the physician. The changing conditions, trials and problems of medical education, the increasing requirements laid down by the colleges and medical boards are matters of vital importance and interest to the medical student of to-day, but the rapid changes and advances in the science and art of medicine itself, make the question of the continuous education of the physician one of most vital importance to him, and just here appears the highest function of the medical society: to provide, if possible, the means by which its members may preserve contact with the ever-advancing column and keep informed as to contemporary changes in our science and art, by presenting a modern program at the meeting and maintaining as good a library as the funds will allow." Thus spoke Dr. G. E. Seaman in his presidential address to the Milwaukee County Medical Society.

The value of the county medical society to the individual physician has often been referred to by various organization workers, but after all that has been said we must concede that the above accurately describes the foremost of all the benefits that may be derived from membership. We desire that every county secretary in Michigan bring this benefit to the attention of every eligible physician in his county who is not a member of the county society. Make him see that he cannot pursue his cloistered existence alone and not fall into a rut and thus be relegated as a private weakling to the farthermost rear rank of the organized physician—a straggler!

Individual missionary work on the part of the secretary is essential. There are members of the profession who are good men and who still remain unaffiliated. It devolves on you to personally interview them and in an honest open way point out to them the advantages that will accrue from affiliation with your society. Do this and you will be surprised to find that these non-members will be anxious to join when once you place the matter squarely before them. There are 1,000 doctors in Michigan who should become members of your and the state society. Will you not make it your special duty to at once commence a campaign that will not be permitted to terminate until they are elected members?

Even though the summer season is at hand it does not necessarily imply that the meetings of your society should cease until the fall. Automobiles and good roads have simplified transportation problems and distance is no longer so great an obstacle as it has been in the past. During the winter months it was a difficult matter for your rural members to reach your meeting place. Now that the roads are passable do not deny these men the benefit of your society meetings. Provide attractive and instructive programs. Enlarge on your social features and hold a meeting at least once a month and thereby enable these members who live at a distance to make up for what they lost during the winter when they were unable to attend by reason of bad roads and inclement weather. Induce them to take part in your programs and by so doing your summer meetings will more closely cement your professional relationships.

Public Health

THE MONTIETH BILL

The last Michigan legislature has been said by many, who are qualified to judge, to have surpassed any previous legislature in the enactment of laws which have for their purpose the safe-

guarding of the nearly three millions of Michigan citizens. These laws include many provisions for increasing the efficiency of our educational institutions; our banking laws have been materially strengthened; the insurance policies have been rendered more secure; the rights and welfare of labor and capital have received creditable consideration; good provisions have been made for the better care of the state's dependents, the deaf, the blind, the insane, the feeble-minded, the epileptic, the sick and crippled as well as the technically delinquent. Very soon, if not already, the public will become aware of the consideration given these subjects by the legislature recently adjourned, and certainly the thoughtful individual will declare that on the whole the laws passed by this legislature are decidedly creditable to the communities whose representatives took the active interest which was continually evidenced in the determination to establish laws whose aims and intents are better care and development of all personal, property and municipal rights and principles.

Several laws of vast importance from the public health standpoint were enacted. Each of these is worth the page of space allotted to this article. Among the most important ones might be mentioned the "Medical Practice Act," which gives the practice of medicine in Michigan, for the first time, a real technical legal standing; the "Nuisance Law," which makes it possible for a local board of health to abate or cause the abatement of a nuisance without having to unwind and again wind up an endless red tape, the "commission for investigating the causes, extent and distribution of feeble-mindedness, insanity and epilepsy," which shall report to the next regular session of the legislature the results of the investigation together with recommendations, the law providing for the "sterilization of feeble-minded," the establishment of an "epileptic farm colony," the provision of measures to "prevent blindness in the new-born," important measures to provide for the "purity of food-stuffs," provision for more adequate extension of the services of state and local boards of health, and the so-called Montieth bill, giving the State Board of Health supervision over every waterworks system and every sewage disposal system in this state.

Of this last-named law, it is in order at this time to make a few statements more, perhaps, of explanation of the law than anything else.

Local, or self-government, is an established principle of American political economy. We insist, as individuals, as families, as municipalities and as a nation, in running our own business, so to speak. This right has never been successfully contradicted. On the other hand, there is a principle of government, just as reasonably established, that as individuals, as families, as municipalities and even as a nation we may not so manage our affairs as to menace the life, limb and happiness or health of other groups of people if within our power to prevent. It is also established that the parent may not so manage the household as to prevent proper development of the physical, mental or moral principles of the child, the municipal governing body may not place the citizenship to disadvantage, nor may the federal government unduly embarrass the possibilities of the individual government units.

These may be said to be the fundamental policies underlying and confirming the provisions of the Montieth bill.

This bill provides that the State Board of Health shall employ for full time service a competent sanitary engineer, and through him shall serve the municipalities and people of this state by assuming, where necessary, control of waterworks systems and sewage disposal systems and causing the same to be so installed and so managed as not to constitute a menace to the health of the community and neighboring communities. This law provides that each municipality, private corporation, partnership and individual engaged in furnishing water to the public for household or drinking purposes, shall prepare and file with the State Board of Health complete plans and descriptions of all parts of said waterworks systems. The same provision is made in respect to sewage disposal systems. On receipt of these plans they shall be carefully studied by the State Board of Health and the sanitary engineer with reference to the effects which these systems may have on public health. Provision is made for supplementing these inspections by inspections of the systems themselves by the State Board of Health, the sanitary engineer or the state bacteriologist. Following these provisions the law reads as follows: "And if such board on such inspection finds that the public water-supply of any city or village is impure and dangerous to individuals or to the public generally, the said board on its order may require the corporation, partnership or individual owning and operating the same to make such alterations in such waterworks systems as may be required or advisable in the opinion of said board, in order that the water-supply may be healthful and free of pollution." The law further gives the State Board of Health

similar authority in relation to sewage disposal systems.

This, we believe is one of the most valuable laws passed by the legislature. In relation to public health there is no question of more importance to the people of this state than the questions of water-supply and of sewage disposal. A general consideration of our typhoid epidemics and occurrence of other diseases easily proves this fact. In this relation it is suggested that a study be made of *Hygienic Laboratory Bulletin No. 83,* which can be secured free from the United States Public Health Service, Washington, D. C. This bulletin is almost entirely devoted to a study of Michigan water-supplies and sewage disposals in relation to disease.

The inter-relation of our municipalities is very important on account of our large lake borders and many rivers. The purity of any municipal water-supply is of more than local concern; it is of vital interest to neighboring communities and to the state at large. The disposal of a municipality's sewage is of more than local concern. To say the most, a municipality has only qualified rights so to dispose of sewage as to pollute the water-supply of a neighboring community.

Michigan has many big water problems to solve. These problems as unsolved are costing many lives. If, as is claimed by eminent authority, the economic loss due to typhoid in a single year in the United States is sufficient to render the water-supply of every city, village and hamlet safe, it behooves us in Michigan to advance along this line.

I know I am expressing the sentiment of the State Board of Health when I say that it is not proposed to use the authority expressed in this law to the undue disadvantage of any municipality or individual. The purposes of the law are valuable and far-reaching, and only by cooperated efforts can the best results be secured. We are anxious that the state sanitary engineer be considered a public servant rather than an official. We extend to every "municipality, private corporation, partnership and individual" in Michigan his services of judgment and advice to the end that we may discontinue drinking our sewage and reduce to a minimum our typhoid rate even as it has been done in other places by the application of similar principles of sanitation and civilization.

Any one desiring a copy of the Montieth bill can obtain one by addressing the request to the Secretary of the State Board of Health, Lansing.

Book Notices

DISEASES OF THE NOSE, THROAT AND EAR. For the use of Students and General Practitioners by Francis R. Packard, M.D. Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic Hospital and College for Graduates in Medicine; Aurist to the Outpatient Department of the Pennsylvania Hospital. Second Edition with 145 Illustrations. Philadelphia and London, J. B. Lippincott Company, 1913. $3.50 net.

The needs of students have been especially considered in this edition, theorical matters being largely omitted, but the essentials of examination, etiology, diagnosis and treatment are carefully given. The division of the various topics is logical and calculated to clearness of presentation: pathological anatomy, etiology, symptoms and diagnosis, prognosis, treatment, being presented when possible and in this order. While the text is concise, it is clear and enters into sufficient detail, without theorizing. Necessarily many topics are omitted and others considered only casually, but in each instance the preference is given those topics of more immediate interest to the specialist, the student, the postgraduate student. The labryinth, for instance, receives only a very few pages, whereas vasomotor rhinitis (hay-fever) is considered in considerable detail. The illustrations are good, the style pleasant and the book is a valuable addition to any library, whether that of a specialist or general practitioner.

VACCINE AND SERUM THERAPY: Including a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy. By Edwin Henry Schorer, B.S., M.D., Dr. P.H. Second Edition, 299 pp. Cloth. Price, $3.00. The C. V. Mosby Co., St. Louis, Mo.

The first edition of this work appeared in 1909 and the author now presents us with an entirely rewritten edition with many pages added.

The hope that is held out by vaccine and serum therapy makes it requisite that every physician should possess sufficient knowledge of the subject so as to decide when the vaccine and sera are to be given and what results are to be expected from their use. In this work the author presents the subject concisely and fairly and it should be of the most assistance to the practitioner. The work is commended. In fact, you cannot afford to be without it.

MIND AND HEALTH, With an Examination of Some Systems of Divine Healing. By Edward E. Weaver, Ph.D., Sometime Fellow in Clark University. With introduction by G. Stanley Hall, Ph.D., LL.D., President of Clark University. The MacMillan Company, New York. 500 pages. Cloth.

The reviewer is reminded of an expression gotten off by a wiseacre apropos of something or other. "If anyone likes this sort of thing, it is just the sort of thing he would like." One interested in the sort of material of which this book is composed will surely find much to gratify any morbid curiosity entertained as to the pedigree and early life of Quimby, the spiritual evolution of Dowie, the why of Mary Baker Eddy and the wherefore of most of the pseudo-religio-medical systems, particularly those of recent years, which

have afflicted the human family. There is no question of the author's sincerity and complete faithfulness to his self-imposed duty. He certainly gives chapter and verse. His bibliography covers fifteen closely written pages and extracts from the writings of those who have approved or disapproved, been indifferent to, apologetic for, or receptive of the outgivings of various healers, and the doctrines of mind-wrecking cults are quoted *in extenso*. To justify the appearance of another "system" of healing outside the bounds of legitimate medicine, one would, no doubt wisely, point out the good resulting from the application of faith whether in miracle-working at the shrine of some saint, in the "divine healing" of Dowie, or in the Eddyistic philosophy of love, and negation as to boils and ingrowing toenails.

In this book the reader is treated, on many occasions, to the threadbare story about the doctor who had thrown up his hands (which no doctor worthy of the name ever does), and whose patient, by him condemned to death, was restored through fervent prayer of the minister summoned at the critical time. Dr. Weaver's English is, for the most part, good, and substituting "The services of the faithful dominie" for the "Six bottles of" something he would have the average patent medicine advertisement beaten four ways.

It is not the object of the reviewer to disparage any effort to uplift the depressed by the exercise of faith, or to cast ridicule upon the efficacy of prayer. It is the dependence on a sole reed—more or less fragile—against which he would inveigh. Most systems advocating faith and prayer in healing leave out of account the medical man and the medical and surgical agencies. The wise physician will bring to his assistance the good offices of the priest, but the minister is invading the domain of the physician who exploits a system of healing the basis of which is faith. Too many such systems are already in existence, and the already befoozled public mind can stand no more. The physician himself should recognize the spiritual side of his calling, cultivate in the patient a philosophic attitude toward suffering, and encourage optimism as to the outcome of disease. When his own faith is inadequate to carry conviction, he may summon the pastor, but should himself be the judge of the need of the latter's services and will know the limitations of his armamentarium. He will also be alive to the danger of emphasizing too strongly the emotional side and inculcating indifference to the purely physical.

Dr. G. Stanley Hall in the introduction says: "One need not, and, indeed, perhaps no one would entirely agree with all the conclusions of the author on all the topics treated here, but I see no reason why religion, which in past ages has always exerted such a profound influence on all matters of health and disease, cannot rehabilitate for itself, from material herein described, its old function of healing which, when it is complete, will have profound significance on the future fate and function of the church."

The reader, especially the medical reader, should feel profoundly grateful to Dr. Hall for this permission not to believe, for example, in the author's "valid religious system" and "the power of healing released through a religious psychotherapy . . . mediated by the minister of religion." The author alleges: "One reason why the average Protestant minister isn't more eagerly sought by the people of his church and by men in general who need both bodily and mental help, is that he himself is not a reservoir of healing, reviving and regenerating power." Could the average minister, be he Protestant, Catholic or Jewish, with modesty lay claim to such repletion?

"While pastor of a church in one of our large cities, a member of the church came to the writer for advice as to non-medical treatment of a very painful ear. Being thrown into intimate contact with some people who were adherents of one of the new cults of healing, and judging their belief in some respects misleading, she refused to take the treatment of their cult. She was in doubt about the Christian propriety of any mental treatment. A few words made plain to her the legitimacy of such help for the Christian. She had already experienced partial relief. She had hit upon it in her Christian privileges of faith and prayer, greatly to her surprise, puzzled delight and unmixed gratitude. It was by the same means that she secured further relief and material assistance for the speedy and final cure of her trouble."

Could anyone who was a discriminating and safe counsellor advise any "non-medical treatment" for earache? If so, how about toothache?

CLINICAL LABORATORY METHODS. A Manual of Technic and Morphology Designed for the Use of Students. By Roger Sylvester Morris, A.B., M.D., Assistant Professor of Medicine, Washington University, St. Louis. Formerly Associate in Medicine, The Johns Hopkins University, etc., etc. 343 pages, cloth. Price, $3.00. D. Appleton & Co., New York.

This book is just what its title implies. One of the good practical manuals. It gives in detail the means employed in detecting the abnormal in urine, gastric contents, feces, blood, sputum and puncture fluids. The author has selected the best method for each examination, basing this selection on his experience and the proved value of that particular technic.

Laboratory aid in diagnosis is called for very frequently. Technic has been developed and more accurate deductions are obtainable. To the student or practitioner this manual will be of incalculable value as a laboratory guide. It supplies a want, for there has been need of such a book.

GOLDEN RULES OF DIAGNOSIS AND TREATMENT OF DISEASES. Aphorisms, Observations and Precepts on the Method of Examination and Diagnosis of Diseases, with Practical Rules for Proper Medical Procedure. By Henry A. Cables, B.S., M.D., Professor of Medicine and Clinical Medicine, College of Physicians and Surgeons, St. Louis. Second edition. Revised and rewritten. Cloth. 317 pages, $2.25. D. V. Mosby & Co., St. Louis.

What has been said about the other volumes of the Golden Rule series is applicable to this volume on medicine. The work has been entirely rewritten and the typographical construction has been reset. Chapters on infectious diseases have been added and new rules have been added where the author's experience has demonstrated that they were of value. It has been a very successful book, and since its revision it should prove of greater value. This book should not take the place of text-books covering a given subject more

fully. It serves to supply the busy physician with a quick reference to essentials until he has the available time for more extensive reading. It is a desk handbook.

SURGERY OF THE EYE. A Handbook for Students and Practitioners. By Ervin Török, M.D., Surgeon to the New York Ophthalmic and Aural Institute; Ophthalmic Surgeon to Beth Israel Hospital; Consulting Ophthalmologist to the Tarrytown Hospital, and Gerald H. Grout, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Instructor in the Eye Department, Vanderbilt Clinic; Consulting Ophthalmologist to the Bellevue Hospital, First Division. Octavo, 507 pages, with 509 original illustrations, 101 in colors, and two colored plates. Cloth, $4.50 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

The eye is one of the most important and delicate organs of the entire body, and the successful treatment of its diseases and injuries requires great skill and precision. As a large part of ophthalmic work is of a surgical nature, it is important that those interested in it should have in convenient form a practical statement of those operations which have yielded the best results. Such a book is of even greater value and importance to the general practitioner, who is almost certain at some time to be called on unexpectedly to treat some injury to the eye because of its urgency.

This volume may claim two especially attractive features, its arrangement and its wealth of illustrations. The following plan has been pursued throughout the book: First, before describing each group of operations the authors have discussed the disease for the relief of which they are intended, and have given clear indications for the selection of the proper procedure in any given case. A detailed description of the steps of each operation then follows, with a list of all the instruments required. After this the complications that may occur at the time of operation and later are taken up, together with the post-operative care of the patient.

The authors have included all operations in common use to-day and also others that in their personal experience have given good results. This experience comprises fifteen years of practical work in Budapest, at the Royal Hungarian University Eye Clinic, with Prof. W. von Schulek, Prof. E. von Grosz and Prof. L. von Blaskovics; in Berlin with Prof. J. Hirschberg, and in New York at the New York Ophthalmic and Aural Institute, with Drs. Herman Knapp and Arnold Knapp.

The illustrations are all new and original, and over 100 are in colors. They have been used unsparingly wherever it was possible to elucidate the text.

The work is commended to both student, practitioner and specialist.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS. Pathology, Pathogenesis and Treatment. By George E. Pettey, M.D. 516 pages, cloth. F. A. Davis Company, Philadelphia.

The fact is often forgotten that drug habitués are, in most cases, the victims of disease and that they merit sympathy and are entitled to rational and skilful medical aid, such as is accorded the sufferer from any other physical ailment. The outlining of a rational and skilful medication for these conditions is the basis of this commendable work. The author treats the narcotic addiction as a disease the management of which belongs to the field of internal medicine, not to neurology.

This monograph devotes considerable space to the treatment of acute ailments that occur in narcotic and alcoholic habitués, and properly dwells on the vital and essential principle of the necessity of elimination, and with the outlining of auxiliary lines of treatment he furnishes a rational basis for the scientific and humane management of these cases.

There are so many excellent and commendable features in this book that the reviewer is unable to even enumerate them without utilizing more space than these columns will permit. Suffice it to say that this volume should be in the possession of every practitioner. It is a work that should receive a cordial reception and we wish that every practitioner in Michigan would read it.

New and Nonofficial Remedies

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

CHOLERA AGGLUTINATING SERUM.—The dried blood-serum of horses which have been injected with killed cultures of the cholera vibrio. It is intended for the diagnosis of cholera by the agglutination of suspected cholera vibrios. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

DIPHTHERIA BACTERIN.—This is a *Bacillus Diphtheriae* vaccine claimed to be useful for the treatment of diphtheria-carriers and for immunization against diphtheria. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

COLI VACCINE (POLYVALENT).—For description of *Bacillus coli* vaccine see N. N. R., 1913, p. 221. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

GONOCOCCUS VACCINE (POLYVALENT).—For description of gonococcus vaccine see N. N. R., 1913, p. 223. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

PNEUMOCOCCUS VACCINE (POLYVALENT).—For description of pneumococcus vaccine see N. N. R., 1913, p. 224. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS ALBUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS AUREUS VACCINE (POLYVALENT).—For description of staphylococcus vaccine see N. N. R., 1913, p. 225. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCIC CULTURES.—These cultures consist of colonies of active living *Staphylococcus aureus*. They are intended for the elimination of diphtheria bacilli from the throats of diphtheria-carriers. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

LUMINAL.—Luminal is phenylethylbarbituric acid. It is closely related to veronal, which is diethylbarbituric acid. It is a white, slightly bitter powder, almost insoluble in cold water. It is claimed to be a useful hypnotic in nervous insomnia and conditions of excitement of the nervous system. Merck & Co., New York (*Jour. A. M. A.*, May 17, 1913, p. 1541).

LUMINAL SODIUM.—Luminal sodium is the sodium salt of luminal. It is hygroscopic and readily soluble in water. It is used for hypodermic injection in 20 per cent. solutions. Merck & Co., New York (*Jour. A. M. A.*, May 17, 1913, p. 1541).

MAGNESIUM PERHYDROL.—A name applied to magnesium peroxid (see New and Nonofficial Remedies, 1913, p. 185). Merck & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

MAGNESIUM PERHYDROL, 25 PER CENT.—A mixture consisting essentially of magnesium peroxid, magnesium oxid with water of hydration, containing not less than 25 per cent. of magnesium peroxid. Its properties, actions and uses are the same as those for magnesium peroxid. Merck & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

MAGNESIUM PERHYDROL, 25 PER CENT. TABLETS, 7½ GR.—Each tablet contains magnesium perhydrol, 25 per cent., 0.5 gm. Merck & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL.—(For properties, actions and uses see *Jour. A. M. A.*, May 17, 1913, p. 1541.) Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL TABLETS 1½ GRS.—Each tablet contains luminal 0.1 gm. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL TABLETS, 5 GRS.—Each tablet contains luminal 0.3 gm. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL-SODIUM.—(For properties, actions and uses see *Jour. A. M. A.*, May 17, 1913, p. 1541.) Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 1913, p. 1792).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

DUKET CONSUMPTION CURE.—Ex-Senator Wm. Lorimer who is financing the Duket Consumption Cure has asked the governors of all states to send a representative to Chicago to watch the "cure." It is also stated that he has induced the U. S. Public Health Service to make an investigation. After graduating from the Hahnemann Medical School of Chicago in 1893 and practicing in several states Dr. Duket opened the "Tubercular Sanatorium Company" at Findlay, Ohio, where he used a so-called serum said to be an "antiseptic lymph" which was stated not to be made from any tubercle bacilli and to be used intravenously. The Duket "cure" is being foisted on the public by a man who has no scientific standing and has had little or no scientific training. (*Jour. A. M. A.*, May 10, 1913, p. 1476.)

TONGALINE.—Tonga is said to consist of a mixture of roots and barks which was first used by the "medicine men" of the Fiji Islands. While its therapeutic inefficacy soon became apparent the word tonga has been perpetuated by calling a salicylate mixture "Tongaline." Each fluidram has been claimed to contain: fluid tonga, 30 grs.; extract of cimicifuga racemosa, 2 grs., sodium salicylate, 10 grs.; pilocarpin salicylate, 1/100 gr., and colchicin salicylate, 1/500 gr. Some of the claims for Tongaline are: "It cures rheumatism, neuralgia, grippe, gout, headaches, malaria, sciatica, lumbago, tonsillitis, heavy colds and excess of uric acid." The greatest objection to the use of such a nostrum by the medical profession is that it prostitutes the science of medicine and sets back the clock of therapeutic progress (*Jour. A. M. A.*, May 10, 1913, p. 1476).

ELIXIR TONGA COMPOUND.—The extensive advertising of Tongaline has kept alive a feeling that tonga has certain valuable—if mysterious—properties. As a result almost every large pharmaceutical house puts out a tonga preparation in the hope of reaping some financial benefit from the advertising of Tongaline. If Tongaline were not advertised, tonga would be forgotten and relegated to the therapeutic scrap-heap. Most of the tonga mixtures appear in the form of compound elixir of tonga, which are said to contain tonga, but depend on their action in the main on the salicylates which they contain (*Jour. A. M. A.*, May 10, 1913, p. 1478).

COLLYRIUM, WYETH.—In reply to an inquiry regarding the composition of Wyeth's Collyrium, the manufacturers write that "being a corporation" they "are not at liberty to disclose the various formulas" of their preparations. In other words, John Wyeth & Brother expect physicians of this country to prescribe "patent medicines" of whose composition they must be ignorant. Analysis of Collyrium, Wyeth, in the A. M. A. Chemical Laboratory showed its composition to be essentially: antipyrin, 0.41 gm.; sodium borate, 0.55 gm.; boric acid, 2.14 gm., and water to make 100 c.c. The secret of such a formula must indeed be a "valuable asset" (*Jour. A. M. A.*, May 17, 1913, p. 1557).

DIATUSSIN.—According to an advertising circular issued by E. Bischoff & Co., purporting to be a "reprint from the *Munich Medical Weekly*," Diatussin is " . . . a dialysate of herbe thymi and pinguiculae." The latter is said to be known in the Alps as "blue fatweed." The only further information as to the

composition of this preparation is the statement that "the dialysate of this blue fatweed is said by the manufacturer to contain a proteolytic ferment." The writer of the article speaks of a "procession of mothers" with their children affected with whooping-cough who came to him from a neighboring village. Yet he admits that the small number of cases which he has had permit of no definite conclusions and that his article is written to interest others in the nostrum (*Jour. A. M. A.*, May 17, 1913, p. 1558).

Bannerman's Intravenous Solution.—Bannerman's Intravenous Solution is put on the market by a man who is neither a physician or a pharmacist and whose only claim to medical knowledge is that of being a horse doctor. It was first exploited as a cure for consumption and has been known by the various names: "Tubercular Solution," "Germicidal Solution" and "Intravenous Solution." It is now sold as a cure-all. The following meaningless and impossible formula has been ascribed to the preparation: Each 10 c.c. of Bannerman's Solution contains: acid salicylic, 2 grs.; hydrargyrum albuminate, 1/9 gr.; ferrum, 4¼ grs.; sodium chlorid, 6 1/5 grs.; calcium carbonate, 2 grs.; phenol group, 1/25 gr. The claims made for Bannerman's Intravenous Solution are both false and fraudulent. It is a product the use of which appeals chiefly to cupidity and ignorance (*Jour. A. M. A.*, May 31, 1913, p. 1724).

Value of Ammonium Carbonate.—In prescribing for bronchial ailments the primary thought should always be not to give the patient anything that will cause nausea and vomiting. This is particularly true with babies and children. Ammonium carbonate is always irritant. As an expectorant it has no advantage over ammonium chlorid, and as a cardiac stimulant is more or less of a failure. Ammonium carbonate can stimulate the heart or raise the blood-pressure only by irritating the throat, gullet and stomach and may cause vomiting (*Jour. A. M. A.*, June 7, 1913, p. 1792).

Prescription Nonsense.—A mixture containing quinin sulphate, strychnin sulphate, diluted hydrochloric acid, glycerin and pepsin has been recommended for bronchial pneumonia in which there is respiratory failure. With a very sick child the cerebral irritation from quinin is not advisable, unless it is positively needed. This prescription is so intensely bitter that a child 5 years old will reject it. Also, quinin inhibits the digestive properties of pepsin. If strychnin is positively needed it would be better to administer it hypodermically (*Jour. A. M. A.*, June 7, 1913, p. 1792).

Hay-Fever Vaccination.—Clowes of the State Institute for the Study of Malignant Disease, at Buffalo, has observed that sufferers from the American or autumnal form of hay-fever are sensitive to extracts of rag-weed pollen. As a result, an attempt has been made in the Buffalo institution to produce immunity against autumnal hay-fever by vaccination. The favorable results obtained warrant further investigation. The dosage of the extract must be regulated with care as it is not devoid of dangerous possibilities and the uninitiated must be warned against over enthusiasm as the entire matter is in the experimental stage (*Jour. A. M. A.*, June 7, 1913, p. 1796).

Managing the Detail Man.—To reduce the nuisance of the detail men and their samples, the Evanston (Ill.) Pharmacologic Society has appointed a committee to whom detail men must present their case, before they will be received by the other members. This method of dealing with the proprietary question indicates that the physicians of Evanston are alive to their responsibilities. Would it not be simpler and just as efficient, however, to accept the findings of the Council on Pharmacy and Chemistry as constituting credentials for the detail man? Many physicians are using New and Nonofficial Remedies for just this purpose (*Jour. A. M. A.*, June 7, 1913, p. 1812).

Scopolamin in Labor.—A few years ago it was proposed to use morphin and scopolamin (hyoscin) in labor and give a sufficient amount to render and keep the patient in a semiconscious state. This plan was tried out in several German clinics but seems to have been generally abandoned (*Jour. A. M. A.*, June 7, 1913, p. 1814).

UTERINE HEMORRHAGE

1. No treatment of uterine hemorrhage can be rational, unless the cause is established; the empirical administration of hemostatic drugs is frequently useless, and indiscriminate curetting is dangerous.

2. The menorrhagia that occurs in young girls at the age of puberty is probably due to the association of functionally mature ovaries with a deficient uterine musculature. It tends to spontaneous cure, and should be treated by rest and, if possible, removal to a higher altitude.

3. Hemorrhage in young women may be due to mucous polypus, adenomatosis uteri, or bacterial infections of the uterus.

4. A practical method of investigating the bacteriology of the uterus is by the collection of the menstrual blood.

5. Hemorrhages at the menopause are frequently the result of increased arterial tension, portal obstruction, or degeneration and fibrosis of the uterus secondary to arteriosclerosis. It is probable that some cases of fibrosis uteri are syphilitic in origin. Treatment must be to reduce vascular tension. Ergot usually fails, and it may be necessary to remove the uterus.

6. Faults in the calcium metabolism may be the cause of obscure uterine bleeding, which may be cured by discovery of the cause and the administration of calcium salts. Occasionally, the combination of thyroid tissue with calcium is beneficial.

7. In every case of uterine hemorrhage, it is essential to look for a general cause before the local pelvic condition is investigated.—Whitehouse, *The Practitioner.*

RETROFLEXION OF THE UTERUS

1. Simple mobile retroflexion of the uterus seldom, if ever, causes symptoms.

2. A patient with a mobile retroflexed uterus, suffering from any of the symptoms mentioned in this paper, who has not been improved with a course of drugs, should have the uterus dilated and curetted.

3. Any fixation operation is unjustifiable in these cases until curettage has been given a trial.

4. If curettage has failed to improve the condition within twelve months of the operation, a fixation operation may be advised.

5. In almost all the cases in which curettage has failed, some condition, other than simple retroflexion, will be found.—Donald, *The Practitioner.*

The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, AUGUST, 1913 No. 8

Original Articles

THE NATURE AND TREATMENT OF BRONCHIAL ASTHMA.

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Mrs. H. had suffered from asthma for a number of years, the attacks usually being followed by persistent bronchitis with considerable expectoration. There were occasional periods of comparative freedom but during the winter months she was compelled to seek a mild, equable climate. At length her condition grew so bad that in October, 1912, she took to bed and the author was asked to see her. The examination disclosed the usual findings of chronic bronchitis with emphysema and the patient's breathing was characteristicly asthmatic. From the history it seemed quite reasonable that the seat of the mischief lay in the upper respiratory tract, and she was advised to consult a nose and throat specialist. Several months later this patient reported as follows:

The specialist discovered an infected antrum which he punctured and drained. For three months the lady was free from asthma. She then took cold, the middle turbinal swelled, blocked the opening into the sinus and stopped the drainage. Thereon her asthma promptly returned and at the time of her report she was having vaccine made from her sputa in the hope of curing her bronchitis.

Let us see if in this case there are any facts which throw light on the nature of bronchial asthma. The one fact that stands out conspicuously is the relief that followed drainage of the maxillary sinus and the recurrence of symptoms when drainage of the antrum was checked. Evidently a close connection existed between the free discharge of pus from the sinus and the disappearance of the asthma. How then can this connection be explained? Was it a reflex, one brought about through the central nervous system? or was the relief only accidental, a *post hoc* and not a *propter hoc,* as we say? Until three years ago no satisfactory explanation of such a connection was to be had, but now, thanks to the doctrine of anaphylaxis an all sufficient explanation is at hand, an explanation moreover which is not theoretical but is founded on scientific data. That the reader may understand how this doctrine of anaphylaxis accounts for bronchial asthma we must state briefly the principles underlying anaphylaxis.

PRINCIPLES OF ANAPHYLAXIS

By this term is meant a protein sensitization or hypersensitiveness to some foreign protein which is introduced into the system of an animal either by way of the alimentary tract or parenterally, that is, by injection into a vein or into the peritoneal cavity or under the skin, in any way in short, that permits its absorption. The protein thus introduced may be stable, such as egg albumin, serum albumin, the tox-albumin of a plant, etc., or it may be labile and active as bacteria. So soon as the protein enters the system certain cells of the animal generate a proteolitic ferment the specific function of which is to attack, split up and destroy the foreign protein.

If the amount first introduced be not too large no symptoms are produced, but when after a lapse of fourteen or more days a second injection is made, definite symptoms occur which indicate what is known as anaphylaxis or the anaphylactic shock. If this shock be sufficiently severe, death is the result. In the splitting up of the protein molecule, two elements are liberated which Vaughan likens to the acid and alkaline constituents of a salt. One of these is the poisonous or toxic group, while the other or basic group of the protein molecule is that which gives the characteristics to the protein, and it is this latter or secondary group, as Vaughan calls it, which sensitizes the animal.

Let it be remembered, however, that whether the animal is to be rendered immune or is to be sensitized and show phenomena of anaphylaxis

depends on the length of time allowed to elapse between the first and second injection. In other words, if the protein be introduced at short and successive periods and in doses which the animal cells can dispose of, immunity becomes established, but if the second injection follow the first after two weeks or longer, sensitization or anaphylaxis and not immunity is the result. Two other facts also must be borne in mind, namely, the cells of the animal body may store up their specific proteolytic ferment for a long time, months or even years, and the change in the body cells may be so profound as to be handed down from mother to child. Again, it is perfectly possible for an animal to become sensitized to any number of proteins and not merely to one.

ANAPHYLAXIS AS RELATED TO ASTHMA

But some one may ask what bearing has all this on bronchial asthma or what has led to the view that an asthmatic paroxysm is a manifestation of anaphylaxis. In reply it may be stated that the likelihood of such a connection seems first to have been suggested by the behavior of guinea-pigs during an anaphylactic shock. Auer and Lewis found in sensitizing these animals to a foreign protein that they displayed symptoms clinically identical with those of an asthmatic attack. Furthermore, when death occurred and the lungs were removed the bronchioles were found stenosed through firm contraction of the circular or constricting bronchial muscles. It was impossible, indeed, to force any more air through the contracted bronchi into the emphysematous lungs.

In addition to these observations of Auer and Lewis, Rosenau and Anderson direct attention to the dangerous and even fatal anaphylactic shock produced in some asthmatics by the injection of diphtheria antitoxin or other sera derived from horses. Quite a number of such cases have been reported, and in all such it was found that the individuals were sensitive to eminations from horses, and apropos of the well-known fact that some asthmatics always experience an attack when in proximity to horses; it has been stated that the fine hairs from these animals contain enough protein to affect a sensitized individual.

The facts thus briefly stated have led workers in this field of protein sensitization to advocate the view that bronchial asthma can no longer be regarded as a result of reflex disturbance of the nervous system or as a mere neurosis either inherited or acquired. There may be, it is true, some peculiarity of the nervous system or physical idiosyncracy, as it were, which causes some persons the same as some animals, guinea-pigs, e. g., to display respiratory phenomena as a manifestation of anaphylaxis, while others do not, or, as in the case of dogs, show profound disturbance of the gastro-intestinal tract.

Lastly there are some facts regarding the prevention of anaphylaxis which have a bearing on the influence of certain remedies in relieving an asthmatic paroxysm. For instance, Besredka, a worker in the pasteur laboratory, has found that alcohol and ether are capable of preventing for a time at least the development of anaphylaxtic symptoms. So likewise in asthmatics the ingestion of whisky or the inhalation of ether may cut short an attack and render the individual entirely free from dyspnea for days or even weeks. Thus in an instance known to the author, a man who had suffered from asthma in an aggravated form for several months was so thoroughly rid of dyspnea for three weeks succeding a tonsillectomy with ether anesthesia that both he and his physician were congratulating themselves on his cure when coryza again set in and was promptly followed by a return of the asthma.

Whether morphin, heroin and so-called asthma powders act as a prophylactic as do alcohol and ether, or whether they relieve temporarily by simply overcoming bronchial spasm and hyperemia can not be stated definitely. But in the beneficial effect of ether and alcohol is to be found corroborative evidence in favor of the anaphylactic nature of bronchial asthma.

In the light of above facts, how is to be explained the case briefly narrated at the opening of this paper? It is really quite simple! The infected antrum was a focus from which bacterial protein was absorbed, the original sensitization having occurred many years before. At times, doubtless owing to favorable weather conditions perhaps, drainage through the nose lessened absorption, but with the advent of winter conjestion of the turbinates increased, protein absorption became greater and anaphylactic symptoms in the form of asthma became intensified. As time went on chronic bronchitis was added and the patient's state became truly pitiable. Then was instituted adequate drainage of the antrum, absorption was prevented and the asthma, that is, the anaphylaxis disappeared. When, however, drainage was again stopped in consequence of a coryza, symptoms returned with all their former severity.

NASAL ASTHMA

In the author's opinion the foregoing is a fair sample of the many cases of what may be called

nasal asthma. In many persons this malady develops after adult age has been reached and the individual soon manifests more or less persistent dyspnea with frequent, perhaps daily exacerbations that merit the name of bonchial asthma. In several such cases seen in the last few years there has been a history of the trouble developing a few weeks subsequent to a severe rhinitis or what the patient has termed "a grippe attack." Some of these sufferers had been examined by specialists and some had been subjected to an operation such as removal of a bony ridge on the septum or a hypertrophied turbinal body. But an infected nasal accessory sinus or a chronic ethmoiditis had not been detected or at all events not treated. The point is, that the operative treatment had not removed the focus from which absorption of bacterial protein took place. In some cases such protein sensitization may have resulted from purulent of mucopurulent secretions pent up within the nasal canal. Justus Matthew mentions such instances which operated on at the Mayo clinic had experienced relief if not cure of asthma.

Perhaps the most frequent finding in connection with asthma are nasal polypi, and often the operator contents himself with the removal merely of the polypi without eradicating the disease of the ethmoid responsible for the polypi This is a mistake for, as Offennorde has pointed out, chronic hyperplastic ethmoiditis in which there is no recognizable discharge, is the focus from which the foreign protein is absorbed and creates the anaphylactic symptoms in the guise of bronchial asthma.

When Hack thirty years ago called attention to nasal defects as the cause of asthma no one knew anything about anaphylaxis and it is not strange therefore that since then numberless operations have been performed within the nose and throat without affording the relief anticipated. The specialist who will cure asthmatics with nasal abnormalities must bear in mind that his work is not complete until he has sought diligently for foci of infection and either has removed any such or has provided for free drainage. In some cases doubtless it may be necessary to have cultures made from the secretions and institute treatment with autogenous vaccines. Some favorable reports have been made from the employment of stock vaccines, but their use is not advisable and may be dangerous.

ASTHMA CAUSED BY OTHER CONDITIONS

Numerous as are the cases of nasal asthma an individual may develop asthma from a protein derived from some other focus of infection. Thus a certain physician who had suffered from bronchial asthma for many years developed symptoms of gall-stones and had his gall-bladder opened and drained. To his astonishment his old enemy, the asthma, was so much relieved that he was able to remain at home and attend to practice the following winter, a thing that had not been possible for many years.

The author has been told of a case in which an old-standing asthma was entirely relieved after an operation for a chronic appendicitis. He knows also of a woman who although a victim of hay-fever had never suffered from asthma until after having acquired a pyosalpynx. This was five years ago, and from that time on she has had bronchial asthma in an aggravated form. In her case there is sensitization to more than one protein, as shown by the effect of the pus-tube infection and the local sensitization of her nasal passages in the form of hay-fever. Such a person is particularly sensitive to protein absorption from whatever source or of whatever kind. Hence in the investigation of a case of bronchial asthma one must bear in mind the fact that an animal can be sensitized to any number of proteins.

This brings us to the consideration of those cases in which the asthma has developed in childhood and in which the asthmatic siezures occur with some degree apparently of periodicity. For many years there are asthma-free intervals when the individual feels well and experiences no dyspnea. With the passage of years, however, a tendency to chronic bronchitis and emphysema appears and the individual shows he is asthmatic by his wheeziness of voice and breathlessness.

In this class of cases the agent capable of exciting an attack is usually well known, as emanations from horses, cats, geese, dust from the street, pollen of plants, certain articles of food, etc. Whatever the exciting cause may be it contains a foreign protein to which the person has become sensitized some time in the past. If there is an inheritance of asthma from a parent this is explicable on the postulate either that the hypersensitiveness was handed down from the parent or that in consequence of inheritance he becomes easily sensitized to proteins. The liability of certain foods to evoke a paroxysm is to be explained as follows. In the process of digestion protein is split up by the digestive enzymes and transformed into amino acids. These are absorbed and then reunited or changed back into the kind of protein suitable for the particular animal that has ingested it. It is quite possible, however, that owing to a disproportion between

the amount of protein, cheese, lobster meat, egg albumin, etc., consumed and the ability of the digestive enzymes to split it up, some of the protein is absorbed directly as such, before being converted into amino acids. Thereon the proteolytic cells of the host attack and split up this foreign protein into its two groups previously mentioned. Sensitization occurs and if after a suitable lapse of time this food be again eaten and absorbed as before, symptoms of anaphylaxis appear. In one person these may be fever and urticaria, while in another asthma is the result.

To the author this theory or rather this scientific fact of anaphylaxis renders the nature and cause of bronchial asthma clear and simple. The only point still obscure is as already mentioned the reason for the development of asthma in one person and not in another. For the present, therefore, we can only assume some underlying peculiarity or idiosyncracy, which, however, does not materially affect the essential nature of the malady. Moreover in this interpretation of the etiology of this distressing malady lies the possibility of a more efficient treatment than has been the case hitherto.

TREATMENT

This conception of bronchial asthma makes it incumbent on the physician as the preliminary step in management to search diligently for the focus of infection that this may be eradicated by operative interference if necessary. Of course, in cases sensitized to animal or plant eminations, etc., the exciting agent can not be killed off or removed and the individual must avoid exposure to the cause and if this be not possible palliative measures must suffice. But in most if not all instances of the malady some focus exists within the person's own organism from which protein is absorbed. Careful inquiry into the anamnesis will usually direct attention to the probable location of such focus. Thus if, as in cases known to the author, it be discovered that the asthma developed after a severe coryza with profuse purulent nasal discharge, there is strong likelihood of protein absorption from a maxillary sinus or the ethmoid cells. In the latter case it should be kept in mind that hyperplastic ethmoiditis does not show itself necessarily by discharge, but may reveal itself by polypi. In any such case medicinal or palliative measures are ineffectual and only radical operative procedures can avail to prevent further anaphylaxis.

One should remember furthermore that asthma may result from chronic appendicitis, chronic cholicystitis, pyosalpynx or disease of any other structure giving rise to long-standing infection. In the great majority of instances, however, it is disease of the upper respiratory tract that is responsible for the asthma. If chronic bronchitis becomes added and the air tubes contain purulent or mucopurulent secretions they may furnish an additional focus from which the anaphylactic poison may be absorbed. Accordingly such chronic bronchial catarrh must be treated by suitable remedies or even a change of climate. An enumeration of various expectorants would be unnecessary but of them muriate of apomorphin in doses of a quarter to half a grain by mouth in syrup of hydriodic acid is often very efficient. These and even larger doses can be tolerated without producing nausea, as was pointed out by Murrel and the author many years ago. Aspidospermin one half to one grain three or four times daily is often very beneficial, but a combination that has often done good service is the following:

℞ Tr. Lobeliae, 20 c.c.; Ext. grindeliae robustae fl., 30 c.c.; Syr. acidi hydriodici, q. s. ad, 130 c.c. A teaspoonful in water three to four times daily.

Whatever means is employed to lessen or remove the chronic bronchial catarrh and associated emphysema is likely to prove only palliative at the best. The frequent recurrence of asthmatic paroxysms will keep up the pulmonary changes and hence the spasms must be cut short or prevented if possible. A remedy that has grown into favor the past few years is adrenalin applied to the nostrils or thrown beneath the skin in 10 to 15-drop doses so soon as the asthma sets in. Relief in some cases is prompt and pronounced, while in others it may be necessary to add from a twelfth to a sixth of a grain of heroin to the adrenalin. Unfortunately patients are likely to wear out the effect of these remedies, so to speak, and eventually may have to resort to them a number of times before their asthma is wholly relieved. Many other remedies are efficacious in overcoming a seizure, as morphin hypodermically, inhalations of chloroform or ether or resort to whisky in large doses. These all have their drawbacks as well as carry the danger of the formation of a drug habit. Pyridin, which is a volatile liquid, may be inhaled from a handkerchief and often affords prompt relief. But it is likely that the asthmatic will adopt in time some favorite asthma powder which gives him more satisfaction than anything the doctor may advise.

Whatever may be the remedy that is found efficacious its effect is but transient and the sufferer is likely to go on for years unless permanently cured by change of residence or operation. The treatment of this affection has been and still will

remain unsatisfactory so long as the exciting cause is not discovered and removed. It is for this reason that the author feels impelled to insist on the necessity of thorough investigation of the nasal passages and their accessory sinuses, since he believes that in a far greater proportion of cases than is realized the protein which brings about the anaphylactic symptoms is absorbed from some one of these cavities. In particular the rhinologist must leave no effort undone to satisfy himself of the existence or not of hyperplastic ethmoiditis, since even without polypi or a purulent discharge it may exist and may afford the condition required for the production of anaphylaxis and bronchial asthma.

108 North State Street.

SCHOOL HYGIENE, OR THE HEALTH AND PROGRESS OF THE SCHOOL CHILD *

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This is a topic of vast importance, and one which should enlist the interest and sympathy of everyone in this audience. You will, of course, understand that in a brief paper, such as I am presenting to-day, it is quite impossible to do more than to briefly sketch this subject to you, and to merely touch on its almost endless phases, stopping to dwell here and there for a few moments on some of its most salient features.

ARE WE GOING TO GIVE OUR CHILDREN A "SQUARE DEAL"?

The question in a nut-shell is this: Are we going to give our children a "square deal" in our public schools? Are we going to invite or compel them to attend school and then fail to deliver to them what the citizens of this country pay for and have a right to expect? Are we going to diminish crime and poverty by educating the children under the best possible auspices? Are we going to materially lessen epidemics, sickness and bodily defects by the universal standardization and adoption of a proper search for diseases and defects in our public schools? Are we going to strengthen our nation intellectually, physically and morally by improving and increasing our educational facilities and possibilities through the avenue of placing the children of our country in a better physical condition? These are questions for us as citizens and doctors to decide, and these questions embody the text on which I wish to talk to you to-day.

THE PRESENT SCHOOL SITUATION

Let us start with the school houses of the United States, and endeavor to frankly and truthfully view the situation as it really is. We have some beautiful school buildings in this country, but we also have some buildings where, as Governor Ferris of Michigan recently said in his inaugural address, it would be unfit and unsanitary to stable horses and cows. We have some school houses without windows, where all the light and ventilation come from the door. We have some school buildings that apparently do not shock the sensibilities of the health and educational authorites, nor those of parents and other citizens, where children are being blinded (or nearly so) by insufficient and improper illumination, bad text-books and from contagion. In other schools tuberculosis, pneumonia, measles and the other contagious diseases of childhood originate and prosper through unhealthy surroundings. Some schools are so cold and draughty that children are constantly chilled, while others are so hot and poorly ventilated that mental activity is almost impossible.

The best heating and ventilating systems should be in all schools, and the windows should be thrown open from time to time to thoroughly purify the atmosphere. The temperature of school rooms should be systematically observed, and it should be remembered that mental work can be best accomplished and good health secured and retained at a temperature of about 68 degrees.

Some schools encourage crooked backs by bad desks and chairs, while others spread contagion by unsanitary lavatories, roller towels and the common drinking cup. In many schools, children are penned in like cattle with totally insufficient means of escape, and could easily be burned to death as fire attacks the tinder box, called by courtesy a school house. In some schools the physical well-being of pupils seems to have been deplorably neglected, and but little (if any) attention is paid to the indoor and outdoor exercising gymnasium, playgrounds, bathing facilities, proper food, etc., etc. And so I might go on almost indefinitely disclosing the truthful conditions of many school houses; but time presses and I will only add that bad school buildings should be torn down and new ones built, and that school buildings should be erected in healthy, quiet, locations with ample surrounding spaces for air, light and play, and that they should be built by architects who know this special line of work, and that they should con-

* Read before the Tennessee State Medical Society, 1913.

tain every modern and well-tried device that encourages health and easy intellectual and useful progress. These views should be especially emphasized, as in thirty-six of our forty states, school attendance is compulsory.

I wish to protest against the prevalent custom of almost invariably building our best building for high schools, and leaving the youngest children to occupy the poorest buildings. The best buildings should be given to the very young, for it is during the earliest period of school life that children's bodies and characters are most susceptible to surrounding influences. I wish that all children might go to school in proper buildings, but if a choice must be made, by all means give the best to the youngest children.

It is, indeed, surprising that, notwithstanding the fact that the proper building and equipping of school houses is a public affair of vital importance to individuals and to the nation, Ohio is the only state that has seen fit to pass laws calculated to regulate such matters.

THE GREATEST ASSET OF A STATE

The child is the greatest asset of the state. We are educating and rearing a nation that shall be useful in times of peace and in times of war. Our men and women should be big and strong, physically, intellectually and morally. It rests with each mature generation to mould and shape the coming generation. The most important place for this essential work is in the great melting pot of the nation—the public school. Here the children come together and mingle; here they secure at least temporary relief from homes of squalor, destitution and crime. Here we have the opportunity to shape, educate and direct their minds, bodies and souls. Let us not neglect the public schools, the means whereby we can produce the highest types of manhood and womanhood. I herewith desire to endorse the attitude taken by many of our boards of education, and recently emphasized by Mayor Harrison of Chicago, that our schools should be the social centers of their neighborhoods, for those who desire to so utilize them. Meetings, social gatherings, entertainments, etc., should be encouraged to go to the public schools, and the people of the various neighborhoods should be made to understand that these buildings belong to them, and can be utilized for all proper and legitimate functions.

STATISTICS

I have gathered together some figures and statistics on the subject of our public schools that I hope may serve to impress on you the importance of our schools, and the intimate relationship existing between them and the health and welfare of our nation.

In the first place, there are in this country 20,000,000 school children, or 20 per cent. of the entire population. Seventy-five per cent. of these children are suffering from some partially, or completely remediable defect, which is more or less interfering with their physical, mental and moral advancement.

500,000 have organic heart disease.
1,000,000 have spinal curvature, etc.
1,000,000 have tuberculosis.
1,000,000 have defective hearing.
5,000,000 have defective vision.
5,000,000 have malnutrition.
6,000,000 have operable tonsils and adenoids.
10,000,000 have defective teeth.

Seventy-five per cent. of the deaths in the United States are due to contagious and epidemic diseases that could in most instances be controlled and suppressed by proper medical school inspection.

There are 260,000 schools in this country valued at $850,000,000; they cost about $500,000,000 a year to maintain. No other investment pays so well. More money spent for schools means better schools and teachers and scholars, and this means better citizens, less crime and more money.

Forty-four million dollars are invested in the public schools of New Jersey alone, costing $13,000,000 a year to run. There are 500,000 pupils in the state, with a possible attendance of 71,000,000 days, and yet owing to the absence only 9,000,000 of these days were utilized. Seventy-five per cent. of these absences was due to sickness, representing a loss to the state of about $3,750,000. Unquestionably, proper medical school inspection would have largely obliterated such an intellectual, moral and financial loss to the state. In searching for a remedy for this and other ills connected with the health and learning capacity of children, Dr. Ayers points to the confusion existing in this country. Some states and cities have laws that are probably not carried out, while other states and cities have none. Scarcely any two laws concerning medical school inspection are the same. There should be a universal adoption and standardization of such matters in every state in the Union. Dr. Ayers has a bill before his state legislature and hopes to create the office of State Supervisor of Medical Inspection of Schools. The entire cost of this organization will not exceed $15,000 per annum. It will be the officer's duty to create and enforce

uniform rules concerning the health and well-being of the children of the state, including the plan of medical school inspection. He will instruct and encourage all those who are assisting in carrying out this work throughout the state. This plan should be adopted in every state in the Union, and the benefits that would thereby be produced would be simply incredible.

About one house burns down for every school day in the year. What an opportunity for better buildings?

We have about 500,000 teachers, 78 per cent. of whom are women. They are practically all underpaid, considering the high character of the work required, and considering that they are rearing the coming generation. Their pay averages $40 per month, or less than the average day laborer. In some states teachers earn less than $150 a year. They pay the highest average salaries in California ($918), and the lowest in North Carolina ($200).

There are about 300,000 blind people in the United States, costing about $15,000,000 to support, and most of this blindness could have been prevented by proper medical school inspection and subsequent medical care. About 75 per cent. of American children have some eye, ear, nose or throat disease or defect which is seriously interfering with their educational progress. Most of these children can be relieved by proper treatment. It costs, in England, about 23 pounds per annum to educate a deaf child, while a normal child can be educated for 14 pounds per annum. In New York, with a school population of 650,000, 30 per cent. of the children are two years behind their grades, and 90 per cent. of this is due to abnormal eyes, ears, noses and throats. Dr. Cravin found in one New York school 150 defectives who were backward in their studies and incorrigible in their characters. One hundred and thirty-seven had bad tonsils and adenoids and thirteen had defective vision. After these conditions were removed all of their characters and school standing rapidly improved. Forty thousand Minnesota children are retarded one year in their studies by adenoids. This costs the state $1,000,000, which could all be saved by 40,000 simple operations.

Ninety per cent. of school children have decayed teeth and deformed mouths. Decayed teeth produce pain, diseased mouths, germ saturated food, poor mastication and digestion, intestinal toxemia and impaired nourishment and bodily resistance. Dr. Osler declares that bad teeth are a greater misfortune to the world than alcohol, and I believe this statement can be substantiated. In Vienna they have formed a society for the care of children's teeth, with buildings in all parts of the city. They preach the gospel of good teeth and clean mouths to children and their parents. The Forsyth Brothers have erected a $1,500,000 building in Boston for the same purpose. Free dental infirmaries are now at work all over this country; but I would recommend that dentists who work in such institutions receive a reasonable remuneration for their arduous labors, as free service is too much to ask of dentists, and it has been shown in many places that the work languishes where no compensation is forthcoming. Children should not only have their diseased mouths regenerated, but they should be taught how to take care of their teeth by personal demonstrations and leaflets distributed to them and to their parents, as is done in Denver and other places. One of the large packing houses of Chicago, realizing that good teeth are an important factor in the maintenance of physical equilibrium, and that bad teeth induce poor health, pain, absence from business, the use of liquor, etc., has lately established at the yards a dental infirmary, where their employees may be cared for at practically no expense. The company pays the bills and considers it is saving money by so doing.

Dental infirmaries may be separate institutions, or they may be connected with other free dispensaries accessible to school children, either connected directly with the schools, or situated so as to accommodate an extensive neighborhood and a number of schools.

EXAMINATION OF SCHOOL CHILDREN

I have for years been interested in the examination of school children's eyes, ears, noses and throats by school teachers, and for this purpose have devised a series of nine questions, the answers to which will disclose the existence of at least 90 per cent. of serious disease, or defects of these organs. Teachers are perfectly competent to make these tests, and a child can be readily examined in five minutes. If a defect is found, a "card of warning" is sent to the parents, urging action in the matter. A vast majority of children (over 75 per cent.) suffer from such defects, that are more or less preventing satisfactory school progress. A child whose eyes prevent comfortable study, or whose deaf ears render easy communication with those around him impossible, becomes retarded in school, discouraged and careless, truant and idle, and ultimately very likely leaves school, forms habits of idleness and vice, and not infrequently joins the criminal classes and becomes an expense and a charge to the state,

in reformatories or prisons. To permit such children to follow such a program is neither economical, philanthropical nor wise. Such defects should be systematically discovered and relieved (especially as the expense is almost nothing), after which the dull student may become bright and the hardship of study transformed into a pleasure. Even in cities having medical school inspection, I believe it much better to have these eye, ear, nose and throat tests made by either the teachers or the school nurses. Any intelligent teacher can make them. The doctor to whom the child goes will diagnose and treat the disease or defect. A day in the early fall should be annually devoted to these tests, and by so doing, and by a subdivision of the work so that each teacher makes the tests in her own room, an entire city can easily be examined in one day. Or if this idea be deemed inadvisable, a few children can be kept after school during a certain week in each early fall, and at the expiration of the week all the children will have been examined.

If in the state of Tennessee you are not fully prepared to go into the matter of general medical school inspection, you can at least have these simple, cheap and efficient tests made, for by so doing you will accomplish a vast amount of good at practically no expense and no trouble. No teacher should feel that these tests are an additional labor, for they are but little trouble, and in the end will repay the teacher a thousand fold in reducing her work by changing stupid, exasperating children into bright and agreeable scholars, after their eye, ear, nose or throat defects have been relieved.

Dr. Hoag of California, now working with the Minnesota State Board of Health, at the suggestion of that best of secretaries, Dr. H. M. Bracken, has devised a series of questions which enlarges on my method. I proposed years ago that an annual systematic examination of school children's eyes, ears, noses and throats should be made by teachers. Dr. Hoag goes further, for he proposed by similar simple questions and observations made by the teachers to include practically the entire body. His questions are subdivided off into groups, such as "Eye," "Ear," "Nervous System," "Teeth," "General Condition," etc., etc. The teacher fills out the answer to all the questions, after which a very good idea of the child's health and condition can be formed. If the child is defective or diseased, the parent is then urged to seek the advice of a reputable physician. Dr. Hoag has his headquarters at the Capitol building in St. Paul, and holds himself in readiness to go wherever called to make health observations and to give instructions to school authorities, how they can best accomplish medical school inspection in the various towns. He is kept constantly busy and is doing the best and most systematic work I know of in this country. He allows each town to select one of three methods of doing the work. They are as follows:

1. Organization with a medical officer and nurse, or nurses.

2. Organization with school nurse only.

3. Organization by the employment of a simple non-medical health survey, on the part of the teacher only, such as I have just briefly described.

I sincerely wish that all other states would follow the example of Minnesota.

Professor Heck of the University of Virginia is doing field work similar to Dr. Hoag's.

SCHOOLS FOR DEFECTIVES

The question of defectives and schools for defectives is one of the most interesting phases of the subject under discussion. About one and one-half per cent. of the school population is defective mentally. Many children appear to be mentally defective, who become normal in appearance when certain physical defects, such as adenoids, deafness, poor eyes, etc., are relieved; but about one and one-half per cent. of the school population remain mentally defective. What are we to do with them?

There are in all schools four classes of pupils, viz:

1. Those who keep up with their grades.

2. Those who do not keep up with their grades, but who eventually do, after certain physical diseases and defects are corrected.

3. Those who do not keep up with their grades on account of actual stupidity, laziness, viciousness, etc.

4. Those who do not keep up with their grades on account of mental defectiveness.

Children who do not keep up with their grades are called "repeaters." They stay in one grade or room term after term and hardly advance any in their studies. There are about 3,000,000 such children in the United States, and it costs about $100,000,000 to educate, or try to educate them. A very large majority of these 3,000,000 repeating children can be kept from repeating by relieving them of their physical diseases or defects. By taking advantage of this great economical and humanitarian measure, the repeaters would be practically reduced to those who do not progress, owing to real stupidity, laziness, etc., and to those who are actually defective mentally. Concerning the first, we shall have to get along as best we

may, but concerning the mentally defective, I am sure they should be taken out of the general schools, and placed in schools especially prepared for their benefit. All repeating children are a detriment to everybody in the school room, and they should either be cured of repeating or else placed in separate schools. They frequently hold back an entire class, for the teacher either has to neglect the balance of the class for their benefit, or the progressive scholars are taught at the expense of the laggard. Mentally defective children should, therefore, attend small schools, where, under the influence of special teachers, environments and methods, they may be educated according to their mental qualifications. Epileptics may, if necessary, be taught in these same schools.

It is getting to be pretty well understood that badly crippled and deformed children should receive special instruction in separate schools provided by the boards of education. Children only slightly deformed may be educated in the ordinary schools, but there are many children extraordinarily deformed, such as those who are armless or legless, etc., etc., who need special education, both from humanitarian motives and to keep them from becoming charges on the commonwealth. They should be gratuitously transported both to and from school.

Blind and deaf children have access to public schools of special character. Many such children are educated in state institutions; and where their homes and parents are of a poor quality, such places are best for them. But where children have good homes and parents, they should be educated in their own cities, where they can receive the benefits of home surroundings.

Open air schools, especially for the benefit of sickly and tuberculous children, such as are in existence in Providence, Mont Clair, Chicago, New York, Philadelphia, etc., are doing a grand work, and are becoming more popular every year. There are over 200 of such schools in the United States at the present time. The school is usually a commodious tent, or it may be on the roof of a school building, or in rooms well equipped with many open windows. Children are frequently gratuitously transported to and from school, and are given free, or nearly free, hot and nourishing food from time to time. They are well wrapped up in warm clothing and are properly exercised at certain intervals, and are encouraged to take naps in the afternoon. These schools are doing an enormous amount of good. To reduce the subject of tuberculosis to the sordid level of figures and money, I will remind you that 7,000 children die annually in this country of tuberculosis. The average age of these children who die is 12½ years, and inasmuch as the average age of these children when they begin school is 6 years, these children have been receiving free education by the state for over six years before they die. It costs $30 a year for the public school education of a child. These children have, therefore, each cost the state for their education over $180. When we consider that 7,000 children die each year of this disease in this country, it means that the nation spends over $1,000,000 each year of useless money for their education, it is evidently cheaper by far to keep children well than it is to allow them to remain sick or defective.

VOCATIONAL EDUCATION

The question of vocational education in our public schools for children is one of great importance, and it is hoped that it will not be long before children all may be trained for some useful vocation in life in the public schools.

The subject of free, or almost free, lunches of a good and nourishing character is believed by many to be an economic measure, as children who are well nourished can make better school progress than those who are not.

Free, or almost free, glasses is considered in about the same light, as children who need glasses but cannot afford them are much handicapped in school. This need not be a great expense, as in Cleveland, where this work is being done quite thoroughly, they only give away a little over 300 pairs of glasses in a year, which, when purchased at practically wholesale rates, amounts to but very little.

Twelve of our states distribute free text-books, and in Massachusetts, immediately after this law was in execution, the school attendance increased 10 per cent. In Newark, N. J., they have recently established an "Infants' Consultation Station," which is located in one of the school buildings. It is open from 11 to 12 o'clock, and is in charge of a doctor and a nurse. Here parents bring their infants and are instructed how to bathe, dress, feed and care for their babies. Healthier babies will be produced by this process, who, when they arrive at school age, will be much better equipped to receive and profit by a public school education.

Some people imagine that while trachoma exists in India, Egypt, etc., there is little or none of it in this country. Unfortunately, however, trachoma exists in lesser or greater degrees all over the country. Dr. John Green, Jr., found 223 cases in 21,930 school children in St. Louis.

Dr. J. A. Stucky's wonderful journeys into the mountains of Kentucky disclosed a most pitiable trachomatous condition. Trachoma is, of course, contagious, and may be communicated by handkerchiefs, towels, wash-rags, etc., and is fostered and encouraged by bad air, filth, malnutrition, crowded rooms, etc. The necessity is, therefore, apparent for clean, hygienic and proper school houses, decent homes, sufficient and proper food, etc. London has established "trachoma schools," where only trachomatous children are taught, where their eyes are not over-strained, where they are suitably fed and where they receive proper medical attention.

Camping schools, where children are kept out doors all the time, and taught manliness, botany, woodcraft, boating, etc., and where a healthy moral tone is maintained, are very useful and are becoming more and more popular.

City summer schools are maintained now in most all large cities. In these schools the air is cooled and the children are much more comfortable than on the crowded streets, or in the hot and badly ventilated and cleaned tenement blocks and homes. In these schools the studies are easy, and consist chiefly in lessons on cleanliness, hygiene, morals, good citizenship, travel, light literature, etc.; the idea being chiefly to keep the children from the streets, bad association, bad health, dirt, etc., and to retain the beneficial influences and discipline of school life. Cleanliness, health laws and good hygiene should be among the most important things taught in our public schools, not only during the summer vacation schools, but all the year around. These should become a habit with the children. Cleanliness begets self-respect, and self-respect begets most of the good things in life. Clean habits inspire people not to expectorate under unwise conditions, to keep lavatories clean, to dislike dirty towels, clothes, bodies, etc. Not only should hygiene be taught in our public schools, but normal schools should teach this subject to those people who expect to become teachers, so that they may thoroughly understand its practical laws when they come into contact with public school children. Teachers themselves should be compelled to present suitable medical certificates of health before being allowed to follow the teaching profession, and a renewal of such certificates should be required from time to time, as occasion requires. Ailing individuals are not qualified to be teachers of our children.

MEDICAL INSPECTORS

In small towns, one medical inspector will be sufficient, but in large cities many inspectors will be required, who will be under the supervision of the chief inspector, to whom all reports shall be made. Each inspector should give certain definite hours each day to his district, but the chief inspector should give all his time to the work. Each child should be thoroughly examined once or twice each year, and from time to time as occasion requires. Diseased or defective children should be sent home and the parents urged to consult a physician of their own choosing. These notifications should be followed up by the inspector, teacher or nurse, and every effort made to see that diseased or defective children are placed in proper medical hands. I am firmly of the opinion that sex hygiene should be taught in our schools. Male physicians should teach the boys and female physicians the girls. This knowledge is usually acquired in an undesirable manner, and it is best that children should be taught the truth, gently, scientifically and tactfully after the manner described by Dr. Phillip Zenner of Cincinnati.

I am convinced that great care should be taken that children are not over-crowded with school work at the age of puberty.

I also believe that the subject of medical school inspection should be thoroughly taught in our medical schools.

The medical inspector's chief assistant should be the school nurse. She has only been in existence a few years, but has amply proven her indispensibility. Her salary is always entirely inadequate. Everybody loves and honors her, and I have never heard a complaint of her work. In Boston, in one year, the school nurses visited about 23,000 homes of school children. They took 2,500 children to dentists, 9,000 to hospitals and 7,500 to family physicians. They made 36,000 surgical dressings, looked after 3,400 cases of defective vision and 350 cases of deafness. Each nurse cares for a certain district and its children, parents and homes. She assists the inspector each day in his work to whom she reports all suspicious cases. She cares for emergency cases and treats many cases of itch, eczema, lice, etc. She takes children to dispensaries, doctors and hospitals. She cares for them at home under the doctor's orders and makes it possible for the doctor to get good results. Medical inspection without school nurses would lose much of its usefulness. In Philadelphia, in 1910, it was found that without school nurses, 80 per cent. of diseased and defective children were uncared for, whereas with school nurses only 20 per cent. were uncared for. The school nurse also greatly benefits the home life of her district. She teaches

them decency, sobriety, cleanliness, cooking, bathing, hygiene, infant care and feeding, plumbing and drainage, etc. She is an angel of mercy in the household and renders the world better for her presence, and those communities who have once experienced the benefits of her ministrations are never willing to give her up. In many small communities, in conjunction with her other work, she takes the place of the medical inspector and does it well. She inspects the children systematically from time to time and observes them daily. She recommends medical care whenever it seems advisable, but does not treat cases herself, and must never recommend any doctor in particular; this must always be left to the family.

There is a difference of opinion as to whether medical school inspection should be accomplished under the authority of the Board of Health or the Board of Education. Such diverging views unfortunately frequently result in nothing being done at all. For instance, in Chicago, I have been endeavoring for years to secure an annual and systematic examination of the scholars' eyes, ears, noses and throats, but this beneficient movement has been prevented because the Superintendent of Schools and the Commissioner of Health could not get together as to whose shoulders the burden should fall on. The former feels that the Board of Health should pay the bills and do the work, and declares it would be unjust to ask the teachers to make the examinations, ignoring the fact which is attested by thousands of doctors, teachers, etc., who are familiar with the work, that this little bit of time and trouble subsequently repays them many times over by revolutionizing the characters and teachability of many of their pupils. I have too much respect for the intelligence of our Superintendent of Schools to believe that this is the real reason for not giving the order that these examinations shall be made by the teachers. The Commissioner of Health, on the other hand, claims that tests of this kind should be made under the auspices of the Board of Education, and that his department has not the money to have either the medical inspectors or school nurses make the tests. And thus between this conflict of opinion, the poor children in one of the greatest cities in the world refuses to dispense justice to its school children. It is really too bad, the teachers could easily and quickly make the tests if properly instructed; the expense would be almost nothing and the benefit to the children would be almost incalculable. It is quite well recognized by our leading authorities that boards of health should care for all diseases of school children that menace the public health, such as measles, diphtheria and other contagious diseases, while those defects of the children, such as eye, ear, nose and throat defects should be looked after by the Board of Education.

CONCLUSIONS

And now, as I bring this paper to a close, with much to be said that time forbids, I wish to say that one great reason for lack of progress along the lines indicated in my address, is politics — selfish, narrow-minded politics. Starting with bad appointments to health and educational bodies and ending in an entire misconception of duties, the building up of political machines and the yielding to graft, petty and otherwise, the unfortunate children of our country are continually suffering from conditions that seem incurable. I know of boards of education in which can be found saloon-keepers, gamblers, quack doctors, ignoramuses, corrupt politicians, etc. How much of progress can be expected of a board in whose ranks can be found men of this description? They are placed there for political reasons only; to pay a political debt, perhaps, or to cater to some political influence. How much uplift and advancement can be expected of boards influenced by such members? Such men do not believe in high ideals, they believe in graft and politics they call high ideals, "fads," and while saturated themselves with cupidity and avarice, believe that all men are built on similar lines and are as incapable of pure motives and benevolent inspirations as they are themselves. Such progress as I advocate is, therefore, hard to make, because those having such movements in charge are compelled too frequently to plead their cause before an unsympathetic tribunal; incapable or unwilling to believe that there are men and women in this world willing and eager to work for the good of the cause and without hope of reward, save in the consciousness of having performed their duty in that sphere of life in which it has pleased God to call them. Do not forget that if no higher motive inspires those having such matters in charge, it is financially cheaper to educate children properly in suitable buildings and to produce and maintain a high health standard than it is to educate them under reversed conditions, and to pay the money out supporting criminal courts, reformatories, jails, hospitals, institutions for the deaf, blind, dumb, crippled mental defectives, paupers, etc., even if we have no ambition to produce a strong race, as one generation succeeds the other. It must not be forgotten that a strong virile intellectual people is one of the greatest assets a nation can possess, not only in times of war, but also in times of

peace, and each individual community should be willing to do its individual share in the general uplifting and improving and strengthening of the Fatherland as a whole.

My message, as I close, to the state of Tennessee and every other state is, to get busy and take good care of its children. Build up a strong state by building up strong children. Start systematic state medical school inspection with plenty of good school nurses. It is the best investment you can make. Do it—and do it now!

7 West Madison Street.

SKIN-GRAFTING *

WALTER R. PARKER, M.D.
DETROIT

Definition.—By skin-grafting is meant the transplantation of either the whole thickness, or a portion of the superficial layers of the skin to a recently exposed or granulating surface in order to hasten its healing process and to prevent, as far as possible, future cicatricial contraction.

Fig. 1.—Reproduction of photograph of case of cicitricial contraction of right cheek with turning out of lower lid.

Grafts may be divided in general into thin grafts, where only a portion of the thickness of the skin is utilized (Reverdin and Thiersch) and thick grafts, where the whole thickness of the skin is used (usually spoken of as Wolffe grafts).

Thick grafts may or may not be pedunculated. The pedunculated grafts may be from the immediate neighborhood, swung into place without disturbing the peduncle, or transplanted from distant parts, leaving the peduncle attached until the flap becomes viable, when it is cut from its base.

Fig. 2.—Same as Fig. 1, showing result obtained by use of Thiersch graft taken from arm.

Thin grafts may be small or large, varying in size from a millimeter in diameter to several centimeters square.

Grafts may be obtained from the same person (autodermic); from another individual of the same species (isodermic); or from a lower species (zoodermic). The majority of grafts are taken from the same individual, although they may be taken from amputated limbs and cadavers within a few hours after death due to accident.

The Thiersch method is the method of choice, on account of its simplicity, but in such exposed localities as the elbow, palm of the hand, and the knee, where there is considerable pressure and friction, whole-thickness flaps are better. It is advisable to use large flaps, as the healing is as good as with small ones and there are fewer scars and therefore less liklihood to future contraction.

Wolffe grafts may be taken from almost any situation where there is sufficient laxity of tissue to admit of suturing of the edges of the fresh

* Read before Genessee Co. Medical Society, April 19, 1913.

wound, the selection of location being determined by the nature of the graft desired. Sessile flaps have been successfully placed on healthy tendons, fascia, muscle, spongy bone and periosteum. According to Krouse, the ideal results to be obtained, namely, elasticity, softness, movability and normal color, can be obtained in about one-

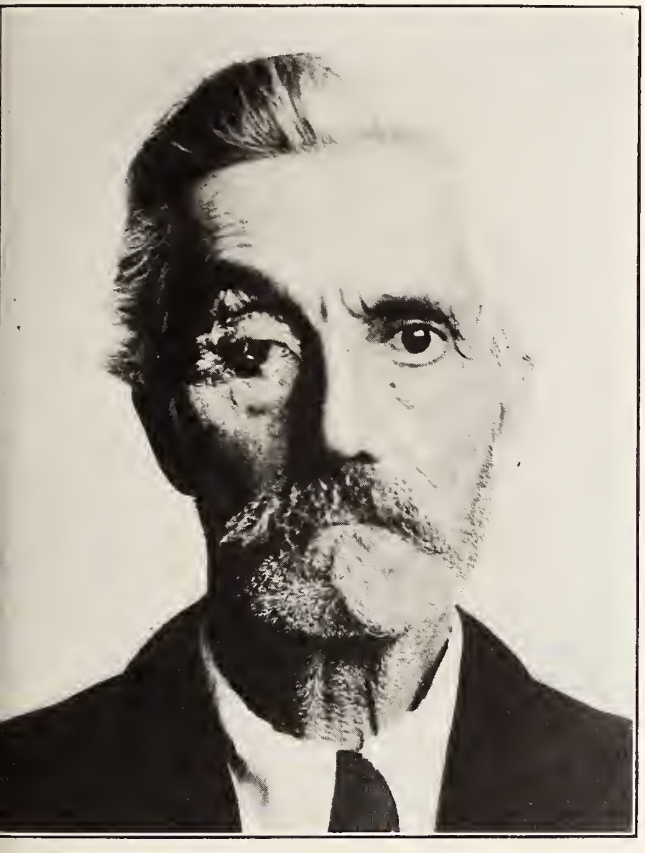

Fig. 3.—Reproduction of photograph of case of epithelioma of outer one-third of upper and lower lid.

third of the full takes. In whole-skin grafts a brown pigmentation may appear which, according to Krouse, originates from the broken-down hemoglobin of the blood which remains in the flap. This can be guarded against by squeezing the flap gently between pieces of gauze before applying. This discoloration is unimportant in the covered portions of the body but is much more serious on the face for cosmetic reasons. Full-thickness flaps sometimes shrivel, due probably to the puckering of the scar tissue in the depth of the wound. While these changes in no way impair the efficiency of the flap, nevertheless they would prevent us, except in cases of necessity, from using sessile flaps on the face, pedunculated flaps and Thiersch flaps being best for this region. Before the technic of full-thickness sessile flaps was perfected and proved so successful, better results were obtained by living, pedunculated flaps with subsequent amputation of the pedicle. The ordinary transplantation from distant parts can be used in comparatively few cases, the forced position being very trying to the patient and in addition a considerable defect is left.

In cutting grafts it must be remembered that elastic shrinkage takes place at once and that cicatrical shrinkage takes place later. There seems to be no way of anticipating or preventing the secondary contraction which sometimes follows an apparently successful Thiersch grafting. The general health of the patient is as a rule important to successful transplantation, grafts not taking as well on syphilitic patients, and care must be taken in isodermic grafting not to transmit disease to a healthy person. Cases of smallpox, syphilis and tuberculosis have been transmitted in this manner.

The grafts may be cut from any part of the body where the skin is thin and free from hair, the inside of the arm or thigh being the

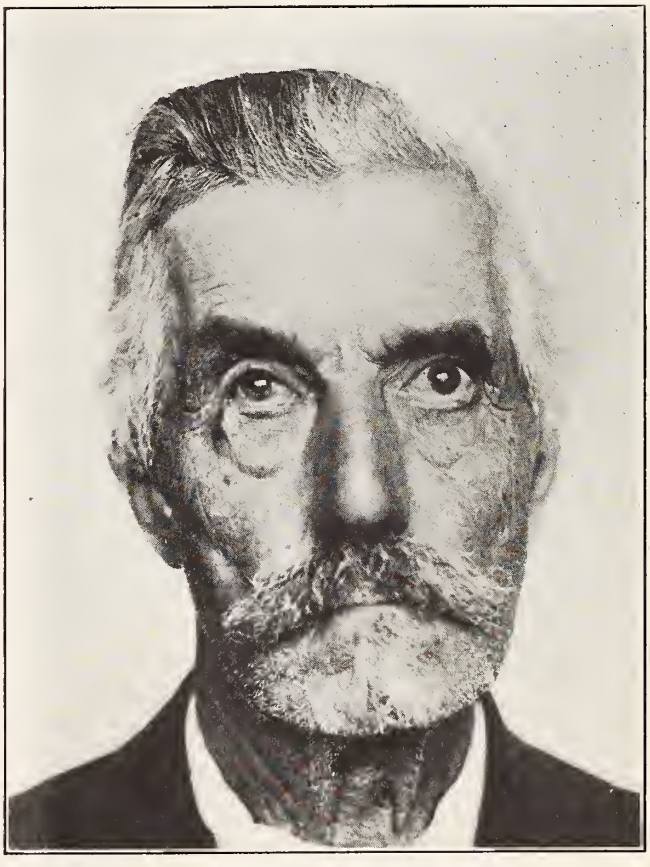

Fig. 4.—Same as Figure 3, showing result obtained by use of pedunculated graft.

places usually selected. The thin grafts are cut with a razor or microtome knife the size and shape of the graft being governed by the size of the surface to be covered. At Johns Hopkins very large thin grafts are cut from the thigh by the use of a Catlin knife and two sterile boards about 8 inches long, placed close together at right

angles to the length of the limb, the first being held by the assistant and the other by the left hand of the operator. The knife is then engaged in the skin between these boards and held almost flat against the limb and by a rapid sawing motion the graft is cut, the knife closely following the board in the hand of the operator, which is drawn slowly along in front of it.

After cutting the graft it is picked up, the raw surface exposed, on a piece of protective taken from the salt solution. The whole is then placed on a board by means of a smooth instrument and the graft is spread evenly. It is then covered with gauze, wet in salt solution until the area to be grafted is ready.

Being sure that all bleeding has ceased the protective on which the graft is spread is placed

Fig. 5.—Reproduction of photograph of case of obliteration of lower culdesac preventing the wearing of an artificial eye.

over the defect, so that the graft is next to the wound, then gradually the protective is lifted up and the graft is separated and left in place. It is pressed down evenly on the wound with pieces of gauze in order to get rid of air bubbles, and to make it adhere as closely as possible. If more than one graft is needed they are placed so that they overlap a little the edges of the wound and the adjacent graft.

If the graft is to be applied to a clean flesh wound it is important to see that all hemorrhage has ceased and that the wound is as dry as possible. If a granulating wound is to be grafted it is only necessary that the granulations be in

Fig. 6.—Same as Figure 5, showing result obtained by use of Wolffe graft after the method of Weeks.

a perfectly healthy condition before the graft is attempted. A Thiersch graft will take just as well on a healthy granulating surface as on a flesh wound.

There is still some difference of opinion as to the relative merits of the wet or dry method of dressing grafts, but all agree that success depends on absolute asepsis.

Most surgeons use perforated or overlaping strips of rubber protective next to the graft and over this gauze saturated with sterile normal salt solution. Dry gauze is sometimes placed directly over the overlapping protective strips or directly over the graft. Some prefer alternating wet and dry dressings, while others use dry powders and ointments.

It is my practice to use the open-air treatment. After the graft is placed in position aristol

is dusted over the edges and no dressings applied other than for protection. Rolls of gauze are fixed around the grafted area in such a manner as to prevent the gauze covering coming in contact with the graft itself. My results since using the open-air treatment are much better than those obtained by the use of protective and dressings.

The grafts are, as a rule, cut while the patient is under a general anesthetic, although many operations have been made without general anesthesia. I have done a few but I believe it is more advantageous and is an operation of enough severity to warrant the use of a general anesthetic.

Freezing or cocainizing the external cutaneous nerves of the thigh have been used when grafts were cut with little or no discomfort to the patient, also the use of ether spray over the field of the cut has been recommended.

For after-treatment, massage of the grafted area and surrounding skin is very advantageous, as it softens the graft, renders it more movable and causes it to assume more rapidly the appearance of the neighboring skin.

One of the most striking things about skin-grafting is the persistence of the vitality of the grafts. The skin of amputated limbs has been successfully transplanted from thirty-six to ninety-six hours after amputation. Davis has successfully transplanted onto healthy undisturbed granulations pieces of whole-thickness skin, taken from a leg eighteen hours after amputation, at various intervals up to thirty days. The skin was kept in an ordinary ice-chest in a sterile jar, plugged with cotton containing a moist normal salt gauze sponge.

All experiments go to prove that nothing is lost in vitality in twenty-four hours, if the graft be kept cool. In cases where there is much bleeding the graft can be preserved and applied within twenty-four hours. Asepsis and a properly prepared field and not "speed" are the most important factors in successful skin-grafting.

The illustrations show the results obtained by the use of grafts of different forms.

32 Adams Avenue West.

OCULAR MANIFESTATIONS OF DISEASE OF THE PITUITARY BODY *

George M. Waldeck, M.D.
DETROIT

The pituitary body, or hypophysis cerebri, is a small reddish-brown organ weighing 5 to 10 grams and occupying the *sella turcica* of the sphenoid bone, separated from the brain by an extension of the dura known as the *diaphragma sellae*. It is composed of an anterior and posterior lobe which differ in size, structure and origin.

The larger anterior lobe develops as an ectodermic process from the wall of the embryonic buccal cavity. In structure it resembles the thyroid gland discharging a stainable colloidal substance directly into the blood. The secretion of the anterior lobe is vitally essential, total removal causing death.

The posterior lobe, developed as a downgrowth, from the third ventricle, is composed of two parts, the infundibular body, the stalk of which passes through the *diaphragma sellae* to the floor of the third ventricle and a very thin epithelial investment, the *pars intermedia*. The secretion of the posterior lobe, part of which bears a close relation to adrenalin, is discharged directly into the cerebrospinal fluid. While not as necessary to life as that of the anterior lobe, it bears a direct relation to carbohydrate metabolism.

SYMPTOMS

Symptoms of pituitary disease may be grouped into two classes:

1. Depending on altered secretion of the gland.
2. Due to presence of tumor causing mechanical pressure on surrounding parts.

While the ocular symptoms are almost entirely due to the anatomical relation of the body to the chiasm, an understanding of the changes caused by altered secretory functions is essential.

Cushing has given an admirable explanation of the variated symptomatology. In thyroid disease we have hyperthyroidism or overactivity of the gland of which Graves disease is a clinical prototype; and a condition of hypothyroidism, grandular loss or inactivity, with Gull's myxodema as its typical adult, and cretinism as its typical childhood manifestation. Similarly in pituitary disease we may have a condition in which the clinical manifestations of past or existing hyperpituitarism or of hypopituitarism may predominate. Hyperpituitarism is evidenced by (a) gigantism, when the process antedates ossification of the epiphyses (Typus Lanois); (b) acromegaly when of later occurrence (Typus Marie).

Hypopituitarism is manifested by adiposity, with persistence of (a) skeletal and sexual infantilism if in childhood; (b) sexual infantilism of the reversive form, impotence or amenorrhea if it originates in the adult.

Often we may have transitional conditions in which it may be difficult to determine which pre-

* Read before the Detroit Ophthalmic and Otologic Club, March 5, 1913.

dominates and to these cases the term dyspituitarism is applied.

This classification does not take into consideration the dualistic character of the gland, for there may be either an over- or underactivity of both the anterior and posterior lobe, or of either one alone. Certain cases present a combination of skeletal overgrowth, due to anterior lobe hyperplasia, and adiposo-genital dystrophy due to a decrease of the posterior lobe secretion. The anterior lobe seems to be closely allied with the other ductless glands and presides more intimately over skeletal growth often combined with cutaneous changes and hypertrichosis, while the posterior lobe is more closely concerned with tissue metabolism, particularly with carbohydrate assimilation and with activity of the renal and vascular systems.

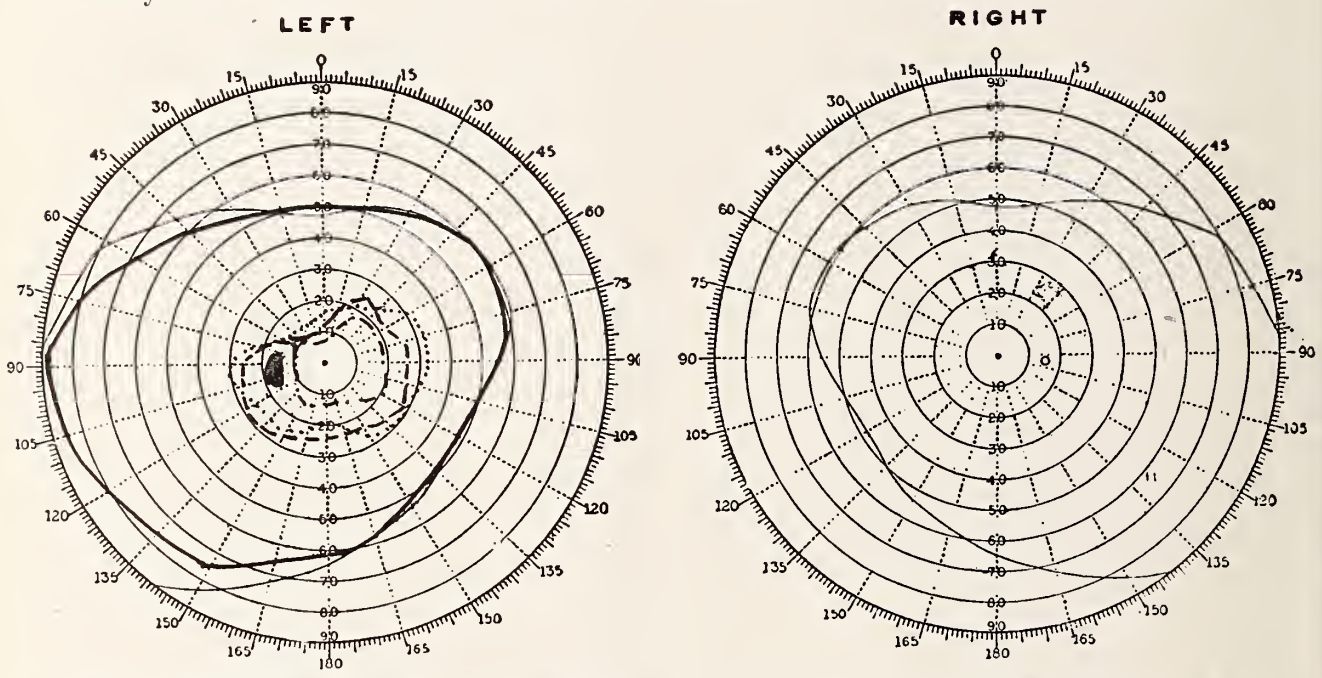

Fig. 1.—Field of vision Case 1, before operation, showing interchange of fields for blue and red. O. S., O.D. No light perception.
———— Form Field. —.—.—.—. Field for green. ..... Field for red. — — — Field for Blue.

All cases of original hyperpituitarism associated with tumor will eventually develop hypopituitarism, and in many cases in which existing hypopituitarism is the striking feature, traces at least of an early tendency to hyperpituitarism may be detected.

Cushing has found that secretory deficiency of the posterior lobe was evidenced by high sugar tolerance with associated tendency to adiposity, subnormal temperature, low arterial tension, somnolence, dry skin, polydipsia and polyuria, loss of hair, and psychic, often epileptiform disturbances, a sort of pituitary myxodema. On the other hand, overactivity of the posterior lobe occasions symptoms the reverse of the above, tissue waste, with loss of flesh. a relative intolerance for sugar often glycosuria, moist skin, hypertrichosis and pigmentation.

The subjective symptoms of pituitary growth consist mainly of headache, usually bitemporal, often severe and persistent. Photophobia is frequently present, associated with deep orbital discomfort and sensitiveness of the eyes to pressure. Psychic disturbances may vary from amnesia to melancholia and epilepsy.

Perhaps the most valuable adjunct to diagnosis is the x-ray. The technic as devised by Dr. Preston Hickey of Detroit, is as follows: Two exposures are made for a stereoscopical examination, both through the side of the head, one slightly above the plane of the sella turcica, projecting somewhat downward and the other slightly below the plane, projecting upward.

PATHOLOGY

Three types of pathologically deformed and enlarged *sella turcicas* may be distinguished.

1. There may be thickening of the clinoid processes and dorsum, the bones here as elsewhere taking part in the overgrowth.

2. Distension of the sella with absorption of bone from pressure atrophy. In advanced cases may become an extreme hollowing out of the fossa, projecting far into the sphenoidal cells, the bony capsule so thin as to cast a hardly perceptible shadow.

3. A more or less complete absorption of the dorsum and a downward dislocation of the base so that the sellar landmarks, with the usual exception of the anterior clinoid processes are effaced. This change may be brought about by

malignant growth—capable of bursting the dural capsule and invading the cranial chamber.

Mechanical pressure on the optic tracts, chiasm or nerves accounts almost entirely for the visual disturbances. Most common is the primary optic atrophy usually more marked in one eye and associated with amblyopia. Rarely is there choking of the disk, and when present, supersedes rather than precedes the atrophy, coming on later when the growth reaches such a size as to cause general pressure symptoms.

The infrequency of choked disk is explained by Huesser, who described two causes: (1) while the tumor is moderate in size, it is positively separated from the rest of the brain by the strongly stretched dura and is not able to raise the intracranial pressure sufficiently to cause papilloedema; (2) it may, by its position, so compress the optic nerve sheaths that cerebrospinal fluids may not enter.

Reduction in vision is the most important and usually the symptom to which attention is first drawn. There may be loss of central acuity or alteration in the size and form of the field.

While bitemporal hemianopsia is the most common and most characteristic visual field phenomenon, homonymous defects are by no means uncommon. Unilateral blindness may occur without much change in the field of the opposite eye as in the first case presented. In all cases the color fields are first involved, the form fields later. DeSchweinitz recently showed the relative frequency of scotomas in pituitary disease. These may be central, paracentral or peripheral, irregular in form and subject to change.

Eventually the hemianopic character of the field is lost by the advance of the optic atrophy and gradual encroachment of the blind field on the seeing field. The macular area is often spared for a long time, but finally becomes implicated, the nasal field in turn progressively shrinks away from the center and blindness supervenes.

At times a positive Wernicke reaction sign may be obtained. Some exophthalmos is commonly seen probably due to local stasis of the Cavernous sinus. There may be disturbances of the third and sixth nerves with or without nystagmus.

CASE REPORTS

CASE 1.—Patient, a young woman of 34 years, was first seen Feb. 21, 1911. When 12 years of age she had a severe fall striking the back of her head. Her menses began at 15 years of age, and continued with fair regularity for two years, when they ceased permanently. She weighed 120 pounds until 18 or 19 years of age, when she increased to an average weight of 180.

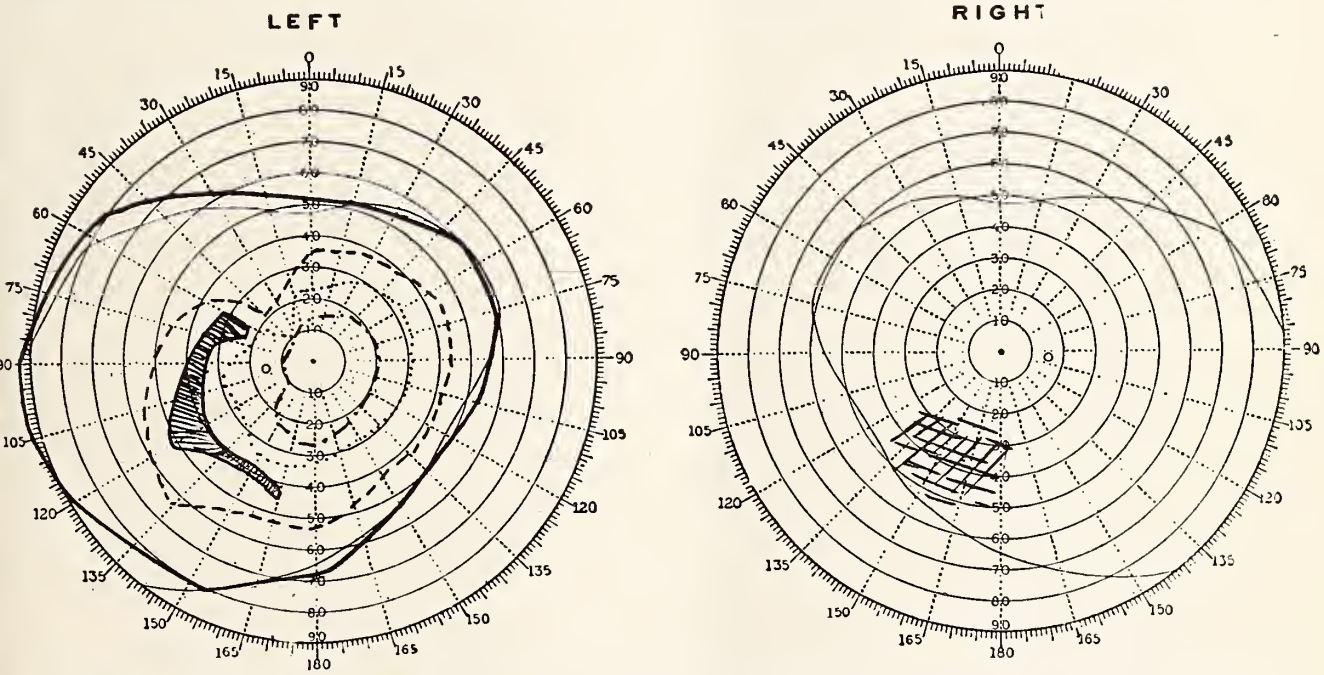

Fig. 2.—Field of vision of Case 1, two years after operation showing temporal scotoma for blue O.S., small area of light perception in nasal region of O.D.
———— Form Field. —.—.—.— Field for green. .....Field for Red. — — — Field for Blue.

Vision in O. D. began to fail sixteen months ago, and in five months was completely lost. Has had frontal headaches and epileptiform attacks of dizziness, sensations of rising from the ground and marked trembling. No loss of consciousness. Has had as many as four in one day, increasing in frequency during the last year. No nausea or vomiting. Worries a great deal, is depressed and lacks in former ambition. Frequently has sudden momentary hemianopsia, the right half of objects disappearing while the left half appears double. Has increased the size of gloves and shoes one size within past year. Physical examination showed some adiposity with muddy, freckled complexion. Mucous membranes pale, infantile

pelvic organs, some maxillary prognathism, hands square and some terminal fullness of fingers.

Stereoscopic x-ray examination by Dr. Hickey showed a much enlarged sella turcica and a wearing away of the posterior clinoid processes, especially the right one. No general pressure symptoms, slight increase in carbohydrate tolerance.

Eye Examination. — O. D. pupil reacts to accommodation and to consensual light, but not to direct light, dilates evenly. Nerve head pearly white, slightly cupped, arteries contracted, vision nil. O. S. pupillary reaction normal, nerve slightly pale, vessels not contracted; vision w. c. 15/15. Field of vision of the left eye (Fig. 1) showed some temporal constriction for form, and slight interchange of the red and blue. Wassermann reaction negative.

enlargement of the hands and feet evidence a former hyperpituitarism and the amenorrhea, adiposity, dry skin and increased sugar tollerance a tendency toward glandular insufficiency.

CASE 2.—Patient, male, aged 46 years, gives a history of gaining 40 pounds during past year, has loss of intelligence of expression and poor memory. He shows suggestive maxillary prominence, course features and short, square hands, with thickening of the terminals. Also a sexual infantilism of the reversive type; sexual impotence for past two years. Wassermann reaction negative. X-ray shows an enlarged cella turcica and an absence of posterior clinoid process on right side.

Eye Examination.—Pupillary reflexes normal, except for loss of direct light, O. D. and con-

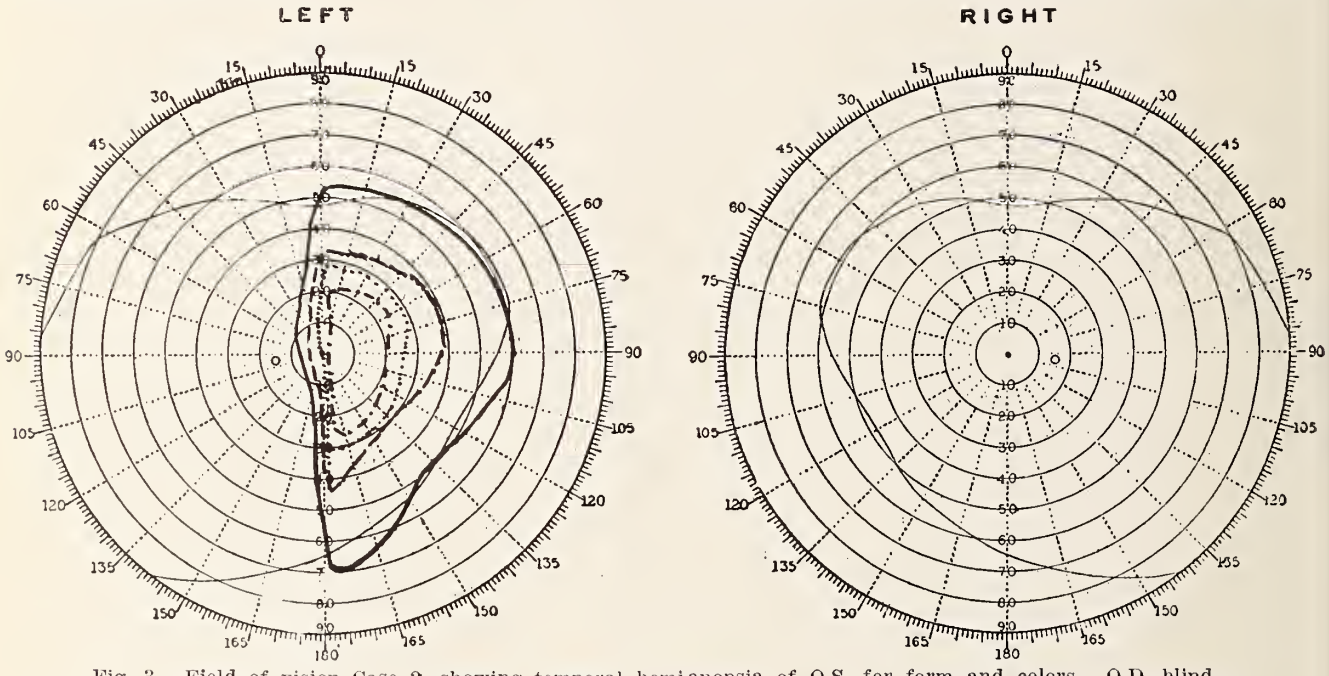

Fig. 3.—Field of vision Case 2, showing temporal hemianopsia of O.S. for form and colors. O.D. blind.
———— Form Field. —.—.—.— Field for green. ..... Field for Red. — — — Field for Blue.

Operated March 18, 1911, by Dr. Harvey Cushing of Baltimore, who performed a sellar decompression by the sublabial route with submucous resection of the vomer. The dural envelope was split over a large bulging gland, and a small portion removed. Histological examination showed a hyperplasia of the gland or so-called adenoma.

Examination March 5, 1913, two years later, showed but little change since before operation. The field of vision of the left eye (Fig. 2) was normal for form. A large temporal scotoma for blue only was found. A small area of light perception was present in the nasal field of the right eye. The vision with correction s + 1.25 = c — 2.25 × 5° v = 6/7.5 +. Except for periodical attacks, epileptiform in character, patient is much improved and able to do her work. Has taken pituitary extract regularly since operation.

The case belongs to the group with pronounced neighborhood but relative inconspicuous glandular symptoms. It shows a dyspituitarism, the sensual O. S. O. D. vision nil, media clear, nerve head pearly white and cupped. O. S. vision 6/60, media clear, head of nerve pale, deep central physiological cup, vessels normal in size, whole fundus granular. Visual fields O. D. nil. O. S. definite temporal hemianopsia for form and colors (Fig. 3).

This case belongs to the same group as the first case, a dyspituitarism with previous hyperpituitarism superseded by a hypopituitarism. The patient refused operation, but on pituitary extract has shown considerable improvement in general health during past five months, except for steady gain in weight.

Adenoma or simple hyperplasia of the gland is the most common tumor of the pituitary body. Sarcoma, carcinoma, teratoma, lipoma, cyst, tubercle and gumma have been found at postmortem examination.

Hypophysial tumors are on the whole slow-growing and benign, varying in size from a pea to a walnut. Sarcomata attaining the size of a hen's egg or larger have been reported.

The great variety of symptoms which may develop from disease of the pituitary body make the diagnosis often difficult. Unilateral optic atrophy especially if there is a tendency to temporal hemianopsia, associated with a history of early failure of sexual functions is strongly suggestive of a pituitary body lesion.

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THE PSYCHIATRICAL ASPECTS OF A STERILIZATION LAW *

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The question of the sterilization of the so-called unfit has been coming into prominence for a number of years, gradually gaining attention until this spring when it took concrete form in a bill passed by our state legislature. Like all innovations, this movement has its ardent supporters who expect the correction of many evils opposed by those who are more conservative and wish to wait for further investigation. Fortunate is the person who can approach these subjects with an inquiring mind free from prejudice and open to conviction. This symposium is an indication, I take it, that this society wishes to view the question from all sides and if possible determine its true position among the many reforms advocated to-day.

STERILIZATION LAWS

A sterilization law was passed in Indiana in 1907, the first state to secure the adoption of such a measure. Washington, California and Connecticut followed in 1909, Nevada, Iowa and New Jersey in 1911, and New York in 1912. In general the purpose of the laws in these states is the prevention of procreation by inmates of public institutions for criminals, rapists, drunkards and drug habitues, insane, feeble-minded, imbeciles and epileptics. The advocates of such laws consider individuals belonging to these classes unfit for parentage, because of the possibility of the antisocial traits being transmitted to their offspring.

This paper will deal more especially with the insane. There is much dispute whether criminality, drug addiction, etc., are evidences of mental diseases, setting aside the question of heredity. It is a large subject, in itself, in regard to which criminologists are not yet agreed. Let us then consider the bearing such a law will have on the individual and society as it pertains to recognized mental diseases.

EFFECT ON THE INSANE

The effect of such an operation—and by this is meant vasecotomy, and salpingectony—on the individual's mental and physical makeup, can be dismissed by a few words of discussion. Authorities claim, and it seems reasonable, that the internal secretions of the testes and ovaries are preserved so there would be none of the deleterious effects which might follow castration. Medical men are agreed, I think, that mental and nervous diseases are not caused reflexly by disturbances of the reproductive organs, so the procedure would have no indirect effect, at least none with which we are acquainted, at the present time. Dr. Sharp, superintendent of the Indiana Reformatory, reports 500 cases of vasectomy and from his observations there are no harmful effects, but on the contrary he believes there is a lessening of fatigue and an increase of muscular energy. At this point it may be said that Dr. Sharp does not record any recoveries due to the operation, bearing in mind that his work was among the inmates of a reformatory.

There is a possibility of an effect on the subject's mind, a psychical phenomenon, not due to a lack of internal secretion or reflexly, but a result of the knowledge that they have been asexualized. This, in the opinion of the writer, would be a very important matter in some forms of insanity, and looking at the question from the standpoint of the patient's welfare, serious consideration would be required before advising the operation. This is especially true in women who have the maternal instinct strongly developed, as it would add another disturbing influence to a mind already upset by some sexual complex. The insane, in many cases, have the same hopes and fears and powers of reasoning as the sane, and they are not to be deceived in a matter of this kind. Such things soon become a topic of conversation among them, making greater the already difficult task of securing their cooperation in surgical procedures of unquestioned value. This objection could be cast aside if sterilization will prevent insanity and result in the betterment of the race.

EFFECT ON THE PUPLIC

Another phase of the problem is the effect it will have on the general public and the friends of the patients. In what way will the attitude

* Read before the Saginaw County Medical Society, May 27, 1913.

of the general public toward the present methods of treating the insane be changed when it becomes known that sterilization is frequently resorted to in hospitals for their care? There is a possibility that it will create a fear of such institutions in the minds of prospective patients and their friends. Patients with mental afflictions need to receive medical care early in the course of the disease in order to bring them under the influence of treatment before the condition has become firmly established. The superintendents of the hospitals in the state are constantly striving for this very thing and have tried to get legislation to make easier the commitment of voluntary patients. If the afflicted are confronted with the possibility of sterilization, the patient and friends are likely to delay seeking medical advice as long as possible. This may seem like an insignificant point; but if early commitments are desirable it may prove to be a serious matter in practice.

The legislation for a sterilization law as applied to psychiatry derives its force from the desire to diminish insanity by preventing procreation by individuals of unsound mind. This is inspired, not only by the desire to prevent insanity, but by the belief that insanity is increasing. The advocacy of such a means can only be based on the idea that it is an hereditary disease.

In regard to the first proposition it must be granted that methods to prevent are more efficacious than methods of cure. As with all other diseases it is best combated by ascertaining the cause and taking steps for its removal. If we have in sterilization such a prophylactic measure, everyone would welcome it. But why all this alarm about insanity? Is the increase so rapid that we must adopt any measure, if it holds out any hope whatever of success? Many authorities will state that there is such an increase, but have they offered conclusive proof? Statistics are derived largely from the hospitals for the insane. The population of these institutions may grow faster than the general population, but this does not of necessity mean more insanity. It may indicate that the state is taking better care of this unfortunate class in providing for them, and that the general public is more alive to the needs of institutional care. Tanzi compares the ratio of the insane in the hospitals to the population in Italy, with Germany, Belgium, Switzerland and England. In Italy the ratio is not more than 2 per 1,000, while in the other countries it is 3 per 1,000—quoting his words, "Must we conclude from this that the most cultured nations of Europe are thrice more exposed to the scourge of insanity than Italy? Certainly not. In the first place, a greater number of asylum inmates does not mean a greater number of lunatics; to a certain extent at least it is only the result of a more highly advanced hospitalization of asylums—that is to say a rational consequence of a high degree of civilization." Dr. Christian has shown that there has been no great increase in the eastern district of Michigan since 1893. The number of new cases admitted to the Pontiac State Hospital in proportion to the population of the district was computed, showing a slight increase in some years; but, whereas in 1893 it was 3.2 in every 10,000 of population, in 1912 it was 3.1.

THE IMPORTANCE OF HEREDITY

The real problem is to determine the importance of heredity as a factor in the production of mental diseases. With all due respect to the investigators, who believe it an established fact, it is permissible to ask if there is conclusive proof that it is the all important factor. The thorough investigation and proper recording of family histories is just beginning to receive attention. There are so many lines of heredity that it takes careful search to uncover them. Hospitals for the insane are endeavoring to compile authentic records of each case; but it is a study of generations, and this of course requires years of work.

When man is studied biologically it can be said that his development and life are dependent on certain things inherent in the germ plasma and influences operating after the union of the sexual elements. Physical man develops along certain uniform lines, such things as familial and racial characteristics being, of course, hereditary. The germ cells unite and divide and become grouped so as to form the various structural divisions of the body, because of certain tendencies peculiar to the germ plasma of the species. It has been proven that certain physical markings are transmitted according to well-defined laws. Dr. Davenport, in his book on "Heredity in Relation to Eugenics," states that "it has been established that eye color, skin color, hair color, hemophilia, Huntington's Chorea, insanity, feeblemindedness, and epilepsy are transmissible; but other characteristics are not so clearly so, as stature, body weight, musical ability, temperament and handwriting." During the development of the embryo certain intra-uterine influences may interfere to bring about a departure from the normal course of events. These would not be ascribed to heredity. Many imbeciles and idiots are the result of these intra-uterine con-

ditions. Referring to Dr. Davenport again, it is found that 30 per cent. of them "belonging to the mongolian type are caused in this way and in whose family no evidence of mental defect can be traced."

When the mental part of man is considered it must be granted that other laws are operative than those of embryology. The eye color, shape of the head, color of the hair, form of the nose, etc., are tangible things, while the mental qualities, as temperament, conscience, memory, judgment, and the other specialized functions of the mind are more elusive to the investigator. They are not present at birth, but are a product of growth, modified by influence in the environment, capable of change by individual effort, and can be spoken of as acquired qualities. The child during the period of development, to finally measure up to the social standard, must acquire all the attributes which civilization has taken centuries to produce. Is it any wonder that sometimes one in a few hundred fail? During the formative period the mind is subjected to many influences. Two individuals living the same kind of a life are not going to have identical experiences, or the same reactions to experiences in common. Each event then makes the one person just that much different than the other, determining individuality. The mind is constantly receiving impressions which combine with previous ones, making associations linked with those already formed. Is it not reasonable to suppose that a peculiar combination of them, depending on individual variations, may result in a dwarfing of some trait or the accentuation of another, so that in after years the individual under some stress of circumstances manifests symptoms which we call insanity?

Let us consider for a moment one of the mental attributes—conscience, the ability to distinguish between right and wrong. It is a state of mind, a feeling accompanying every thought and action, which is uncomfortable or not as conscience dictates. How does such a mechanism develop, and how is it modified? One member of a family has a very sensative conscience, while the others less, even though their social status be the same. The experiences of the one have produced different effects, depending on individual variation. Conscience is a developmental phenomenon. The same may be said of the other mental faculties. Habits of thought, which increase or diminish the powers of concentration and reasoning, are more or less under the control of the will and are matters of training. In the present state of abnormal psychology it is difficult to say what influence such habits of thought have on the production of mental disturbances, but it is reasonable to suppose that they may be an important factor. Granting then the difference between physical and mental traits and the complicated mechanism of mental development, it seems that the cause of insanity is to be sought in some thing besides ancestral defects. The presence of these defects in a percentage of cases does not rule out the other influences mentioned, and hence it is not certain that the elimination of these strains will prevent insanity.

INSANITY FROM OTHER PHYSICAL AGENTS

Some forms of insanity are caused by physical agents. Alcoholic insanity, mental conditions due to toxic states, and the diseases caused by acquired syphilis fall into this class, and probably would not be influenced by a sterilization law. There are other forms for which a cause has not been determined, and it is in regard to these that the question of heredity enters. True it is that a search often reveals psychopathic conditions in the direct or collateral ancestry of many patients more prevalent in some forms of insanity than in others.

WHAT THE STERILIZATION LAW WILL ACCOMPLISH

It can be conceded for the sake of argument that mental diseases are caused by defective strains in the ancestry, in order to see what could be accomplished by a sterilization law as it would work out in practice. The laws as adopted by the different states thus far contemplate the prevention of procreation by subjects who are confined in charitable institutions. The authority is not given to go out and sterilize the parents who are producing these so-called defectives. Even if such a radical step could be taken, it might not accomplish much, as the parents are already past the child-bearing period when one of the offspring reaches an institution. They may have healthy children, and if the hereditary taint is carried to the next generation, sterilization would have to be carried out very extensively to be effective. If the defective strain is carried in the germ plasma it is not going to be eliminated by sterilizing the individual in whom it sometimes crops out.

What can be done for the prevention of insanity by the sterilization of the patient in the institution? It would not be necessary, except in cases about to be discharged. The law, as drafted in Indiana, puts the responsibility on a committee of experts whose duty it shall be to determine whether or not procreation is advisable; "but the operation shall not be performed

except in cases that have been pronounced unimprovable." In New Jersey the commission must decide "that procreation is inadvisable, and that there is no probability of such improvement as to render procreation by such individuals advisable." The improvable clause eliminates a large number of the discharged patients, as many of them have recovered, and in New Jersey and Michigan, where the matter of the advisability of procreation is left to the discretion of experts, their findings are subject to a review by a court of justice. The selected cases must be capable of proof that procreation is inadvisable.

Many patients already have children in good health, so sterilizing the patient will not blot out these strains. Another large class of the discharged patients can be ruled out, of those who would be suitable for sterilization, because they are already past the child-bearing period. From this discussion it can be seen that the field for sterilization in hospitals for the insane is very limited, and there is much doubt in the writer's mind for the necessity for such a measure.

The experience of other states does not help much. An analysis of sterilization laws by Dr. Hatch, in the Report of the Lunacy Commission of California, shows that the object of the law, in those states which have adopted it, is for eugenic purposes only, except California. This state makes use of it for the "physical, mental or moral benefit of the subject." The report further says that in California, where 268 patients have been operated on, that "it does many patients much good, while in others there has been little effect on the mental condition, but generally some improvement in the general health." In those states where it is adopted for eugenic purposes not many statistics are as yet available. In fact, Dr. Hart, Director of the Department of Child-Helping of the Russell Sage Foundation, records in a recent article, that in Indiana in 1907-08, 119 operations were performed; 39 in 1908-09, while during the last two years there were none. It was not made use of in Connecticut and Washington, although in force three years; nor in New Jersey and Iowa, where it has been in force two years. New York has had the law only one year, and there is no report from Nevada. All of which indicates that there is not much enthusiasm where authority has been granted to carry on sterilization.

The feeble-minded, imbeciles and epileptic present rather a different phase of the subject, and more positive statements are made in regard to it. As stated above, about 30 per cent. of the imbeciles are the results of intra-uterine conditions, not determined by heredity. There are others which can be ascribed to inherited defects. As shown by Dr. Davenport, when both parents are feeble-minded or epileptic, all their offspring are so likewise; but the same authority also states that with proper mating the defective taint can be neutralized and eventually lost. To reach and prevent this condition it would be necessary to sterilize individuals early in their reproductive period, and not limit the legislation to inmates of institutions. The general public would not tolerate such a comprehensive measure. Segregation of this class is being advocated by many reformers, as it answers the purpose of preventing procreation, and separates the defectives from society, in which they are always a disturbing element.

CONCLUSIONS

An attempt has been made to discuss the need for a sterilization law, and its application to the insane in public institutions. It is believed that the following conclusions are warranted:

1. Sterilization is not a therapeutic measure of proven value.
2. The extensive use of the law in institutions would prevent early commitments.
3. The question of heredity in mental diseases has not been settled, so the law is premature.
4. The law would not reach the great source of the insane if heredity is the great factor, and would only apply to a few cases in the hospitals, who may have children after their discharge.

Finally, what is needed is an investigation of the causes of insanity, and further study of family histories recording the healthy as well as the diseased offspring. A study of the early life of individuals becoming insane to find conditions having a bearing on the production of the mental disturbance. To do this, insanity must be looked on as a pathological alteration of one of the functions of the brain, and not a stigma of degeneracy, and studied the same as a disease of any organ of the body. These things require state aid, time for thoroughness and an earnest effort on the part of the medical profession.

ANGINA PECTORIS; CASE REPORT WITH COMMENTS *

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Mrs. G., age 63, began complaining, late in August, 1912, of pain in the region of the heart and down the left arm on walking even a short distance. The pain was sometimes accompanied

* Reported before the Kent County Medical Society, May 28, 1913.

by difficulty in breathing, although not always She could not walk a short block without being obliged to stop once or twice. She came to see me about October 1, when the diagnosis of angina pectoris was easily made. Rest was ordered, with mild medication—nitroglycerin and iodid of potassium. Her blood pressure was 200, but a careful examination failed to show any signs of nephritis.

I left the city October 10, and the patient was left in the care of Dr. Corbus, who confirmed the findings as to blood-pressure and nephritis, but also found that she could not take iodin in any form. She improved, however, so that about November 20, and for a short period after that, she could walk quite well, with but little pain.

About December 1 the pains returned and became very troublesome. They would begin suddenly at the precordium, extending from there to the shoulder and down the left arm; never affecting the right side. A sensation of numbness was often present. There was never any pain when walking about the house until just before Christmas, when, on going upstairs, she had a seizure—quite severe. This was followed by others equally severe, but not of long duration. December 24, about one hour after dinner, she was suddenly seized with the most severe pain she had thus far experienced. It seemed (as the patient expressed it) to pass through the heart to the shoulder and down the arm. She was helped to bed, sent for me and was given a hypodermic of ¼ grain of morphin. I ordered strict rest in bed and a more careful adherence to the vegetable diet that I had ordered some time before. Before this, the patient had taken, at the beginning of the attacks, a pearl of nitrite of amyl and 1/50 of nitroglycerin by mouth, and this had seemed to control the sudden attacks.

On Jan. 1, 1913, she was seen by Dr. Babcock of Chicago, who gave her a very thorough examination and confirmed the diagnosis. He also continued the treatment. During the month of January she had a number of mild attacks, which were easily controlled. The last week of January she had a very severe attack of pain in the region of the right kidney, but during that week she was entirely free from pain in the heart. The first week of February, in fact, up to February 11, she felt quite well; sat up in a chair every day, sometimes as long as three hours at a time.

February 11, at about 8:30 a. m., after a breakfast a little larger than usual, while sitting in a chair, she complained of feeling very strange and was convinced that she was dying. The pulse became very slow, with some irregularity. There would be two slow beats and then a long (?) interval without any pulsation, when the same performance would be repeated—two slow beats and an interval of absence of pulsation. She was pale, faint and suffocated. This condition lasted about one-half hour and then normal pulsation was gradually restored. There was no pain of any description.

From February 11 to 14 the pulse was fairly good, averaging about seventy beats to the minute, though it would occasionally run up to over 100, become irregular and sometimes weak. During this time there were several attacks of pain moderately severe in character, with a sense of suffocation, etc. From February 16 to 19 she had no pain, but complained of a very uncomfortable feeling and throbbing in the blood-vessels of the neck. The quality of the pulse was good and there was no sense of suffocation.

February 21, at about 6:20 p. m., pain started in the left arm; the pulse became weak and irregular, running from 66 to 115. From February 22 to March 14 there was very little pain, no sense of suffocation, appetite was good and patient walked about the rooms twice a day. March 14 to 23 the patient had attacks of pain, sometimes quite severe. March 25 she suffered a very severe attack at about 5 a. m., so severe that ⅜ gr. of morphia was given hypodermatically and repeated at 10 a. m., but pain was not entirely controlled and lasted with varying severity for two days. Patient's condition then began to improve in all respects so that from April 11 until the present time there has been practically no pain.

At present, June 4, 1913, the blood-pressure, by Janeway's instrument, is 155. The appetite is quite good, the pulse remains of good quality and is not nearly so sensitive to disturbing influences. The patient sits up twice a day, about two hours or more at a time, and walks all about the upstairs rooms. There is practically no pain and the general appearance is that of convalescence.

The treatment varied, of course, with the conditions. Nitroglycerin, in doses varying from 1/100 to 1/50, has been given from the first. Nitrite of amyl was given occasionally when it was feared that the pain would become severe. Theobromin was given once or twice a day for several weeks, but the benefit was not marked. Stomach tonics and digestants were given as indicated; veronal in 5-gr. doses at bedtime whenever the patient desired. The results were always pleasant and always beneficial — the patient feeling better than usual the next day.

Some six or eight weeks ago the question arose as to whether some of the symptoms might be due to malaria, wherefore she was given capsules of svapina, 1 gr., and quinin 2 gr., every four hours, or rather four times a day—at 8, 12, 4 and 8 o'clock. Since she has been taking these drugs she has had comparatively little pain; whether it is merely a coincidence or not, no one can tell. The patient herself has great faith in them.

My object in reporting this case was not because of its rarity, but to call your attention to three or four questions of interest:

1. Is there any condition or symptom or sign, or combination of signs that will warrant us in predicting the onset of an attack of angina pactoris?

2. What is the cause of angina pectoris or the causes?

3. What is the cause of the sudden death occurring so frequently in these cases?

4. What is the best method of treatment?

First, as to whether anything can enable us to predict the onset of this condition with any degree of certainty. A patient presents himself with a complaint of precordial uneasiness and perhaps an apprehension of some heart trouble. Examination shows the heart beating regularly, slight (if any) increase in the area of precordial dullness, the apex beating in the right place, the first and second sounds heard clearly and apparently normal; when the patient is quiet, no trouble with breathing. The verdict is a normal heart, and a probably faulty stomach. But if, after more or less active exercise, there develops an abnormal sound at the aortic valves, especially if we find aortic insufficiency, we are justified in making a guarded diagnosis of heart trouble with *possible* angina pectoris in the not distant future, especially if there be high blood-pressure. And we base this diagnosis on the high blood-pressure, the precordial uneasiness and the aortic lesion manifesting itself after exertion. We justify ourselves in this diagnosis because we know that the function of the coronary arteries is so greatly influenced by the conditon of the aorta and its valves, and the high blood-pressure would indicate probable sclerosis of the aorta, with involvement of the valves and possibly the coronaries.

Second, what is the cause of angina pectoris, or what gives rise to these severe anginous attacks? As exciting causes, we have walking, digestive disturbances, bending over, anger, anxiety, etc. But these could not, either individually or collectively, bring on an attack of angina in a healthy heart, or rather, in one whose blood-supply is normal. The real and indispensible condition on which these anginous attacks depend, is an ischemia due to failure of the coronary arteries to furnish the amount of blood that the heart needs. In the great majority of cases this is due to stenosis of these arteries. Sometimes, however, it is due to spasm, induced by toxins, etc., circulating in the blood. (That toxins have this influence has been experimentally shown by their action on hearts removed from the body.) Again, some argue that dilatation of the heart may cause angina by overdistention, basing the argument on anology, the stomach, intestines, gall-bladder, etc., causing similar pain when overdistended. Also, it has been shown in Porter's laboratory that acute distention of the heart lessens the flow of blood through the coronary arteries and therefore may cause an acute ischemia and consequent angina.

But let me quote Krehl. He states: "We also do not know what causes the pain of angina pectoris. Arteriosclerosis of the coronary arteries is certainly present in most cases, frequently causing a narrowing of the lumen of the vessel. Perhaps it is the anemia of certain parts of the heart that causes the pain. Such a theory finds an analogy in the condition known as intermittent claudication, in which, owing to a narrowing of the arteries, pains and disturbances of function develop in the legs whenever the patient walks some distance. In some cases the anginal paroxysms cease, and this has been attributed to a reopening of the vessel, although we have no proof of such a hypothesis."

"Nothnagel believes that the pain may originate from the vessels themselves. Such a hypothesis, attributing the pains of angina directly to the spasmodically contracting vessel, is very attractive. It would explain the fact that these paroxysms of pain may occur without anatomical disease of the coronary vessels, as has been observed in nervous individuals, and especially in those who use tobacco to excess. Many other questions in relation to angina are still unanswered, as, for instance, the reason why the pains radiate to the left branchial plexus; the cause of the syncope in some cases; and finally, the cause of sudden death. Every attack of true angina is a menace to the life of the individual and not infrequently the patient dies during the attack. In only one other condition do we see an equally sudden death, and that is in coronary embolism. The cause of sudden death has never been explained."

Hirschfelder states: "It is evident that the heart beat in the sudden death that occasionally occurs may be due either to the occlusion of the artery or to a sudden onset of complete heart-block, as in the Adams-Stokes syndrome. The latter condition is sometimes associated with angina pectoris and very frequently with coronary sclerosis."

I think that Hirschfelder is right in stating that death from heart-block is at least possible in the cases of angina vera, and I am strengthened in this belief by the history of the present case. Herberden (quoted by Hirschfelder) who has

given one of the best clinical pictures of angina that I have seen, says that the pulse, in these attacks of severe pain, was not quickened materially, nor much disturbed. My own experience corroborated this. But this patient had frequent seizures (if I may so term them) when the pain was slight, but the pulse would rapidly run up from 66 or 68 to 112 or 115, and would become weak and irregular. I did not listen to the heart at these times, but I do not doubt that if I had done so, I should have found more or less interference with the transmission of pulsations from the auricle to the ventricle. Once there was almost complete heart-block with the intense consciousness of impending death, yet with no pain. I think, therefore, that many of these patients (if not all of them) known to have suffered from true angina pectoris who are found in the morning, dead in bead, with no signs of struggle or suffering, die from heart-block rather than angina.

Our fourth question, how shall we treat true angina pectoris? finds little divergence of opinion. All seem to agree on the use of nitrite of amyl at the onset of an attack, to be followed by nitroglycerin, nitrite of sodium or some other nitrite. During the intervals, between the anginal attacks, some form of iodin—preferably iodid of potassium or sodium—is the accepted medicament. In addition to these, there is little to be said. Whether the constant administration of an opiate (as in this case, one grain of svapina and two grains of quinin every four hours) can be of any lasting benefit, I cannot say. I can only say that in the present instance this combination of svapina one grain and quinin two grains, was given continuously the past two months, and during that time there has been no angina of any consequence. The blood-pressure has also come down from 180 to 155.

Forchheimer states that anyone suffering from angina pectoris is in imminent danger of collapse, and should always go prepared with heart stimulants such as caffein and digalen. The question suggests itself whether this collapse, so-called, calls for cardiac stimulants or cardiac relaxants. A few years ago the collapse of athletes after strenuous exertion was attributed to acute dilatation of the heart, whereas Groedel, Mowitz, Dietelen and others, have recently shown that in many of these cases the heart was strongly contracted instead of dilated.

THE CARE OF SUSPECTED MAD DOGS

The following points should be borne in mind:

Point 1. If possible to avoid doing so, do not kill a supposedly rabid dog; keep him securely chained or confined for ten days. A *negative* diagnosis may be made from the living animal, if during the ten-day confinement it remains healthy. As long as it remains healthy it should not be killed and there is no need to send it for laboratory diagnosis.

Point 2. If an animal suspected of rabies, dies, its head should be sent immediately, or better, brought by messenger, to the Pasteur Institute for laboratory diagnosis. Address all such parcels: "Pasteur Institute, Medical Building, University of Michigan, Ann Arbor, Mich. Rush. Prepaid."

Point 3. If the report of the institute states that the dog had rabies, anyone infected by the saliva, either through a bite or other wound, should report *immediately* at the Pasteur Institute for treatment. The cost of this treatment is $25 to residents of Michigan. No provision is made by the Pasteur Institute for board or room, but these may be obtained in Ann Arbor at a nominal cost.

Point 4. In localities where the disease is known to exist, all dogs should be muzzled with either wire or properly fitting strap muzzles. The ordinary strap muzzle is in most cases useless in serving the purpose for which it is intended. To prevent the animal's biting the muzzle should be properly fitted.

Point 5. All dogs known to have been bitten by a rabid dog should be killed.

Point 6. As an essential preliminary measure all wounds through which the saliva of the animal may have entered, whether bites or scratches, should be cauterized immediately with *commercial formalin*. This precautionary measure, indeed, should not be neglected after a delay of one or even two days.

TREATMENT OF EMPYEMA

1. Empyema of infancy has a high mortality under any method of treatment yet proposed.

2. One of the chief obstacles to recovery is the difficulty in expansion when the lung is subjected to atmospheric pressure. This rather than imperfect drainage is the principal factor in causing the present high mortality.

3. Aspiration, while occasionally sufficient to cure a localized empyema, is not to be depended on as a means of treatment.

4. The injection of bactericidal substances is not greatly superior to simple aspiration, and is open to the same dangers.

5. Rib resection is not to be advised in recent acute cases in patients under two years old. In chronic cases it may be necessary at any age.

6. Simple incision between the ribs with the introduction of a single tube is sufficient in most cases to secure adequate drainage. It accomplishes in recent cases all that rib resection can do with less disturbance to the patient.

7. Siphon drainage is to be preferred to any other treatment in infants, especially those under one year, giving not only proper drainage and facilitating expansion of the lung, but causing the least disturbance of the patients during the treatment and showing the highest proportion of recoveries.—Holt, *American Medicine*.

FORTY-EIGHTH ANNUAL MEETING

The City of Flint

When the city of Flint raised upward of $100,000 a few weeks ago for the establishment of a Young Men's Christian Association and the erection of a splendid building that is to be fully equipped to meet the needs of the thousands of young men employed in its factories, stores and

Flint Public Library

offices, it gave further substantial evidence of the enterprising, progressive and operative spirit that has earned for it the reputation of being the best city of its size in the United States. In a vigorous campaign carried on during the third week of June, half a hundred teams composed of business men and factory employees put their shoulders to the wheel for the achievement of an enterprise that will redound incalculably to the physical, mental and moral welfare of the youth and young manhood of the city, and working side by side, enthusiastically, loyally and harmoniously, in six short days they attained the goal of $100,000, fixed as the objective of their efforts and added another $12,000 for good measure. The campaign was a magnificent success and a test of the civic pride and resources of Flint that was typical of the city that does things and does them right.

POPULATION

There is no city in the state of Michigan and probably none in the United States, that can be cited as a parellel to Flint in respect of industrial advancement and increase in population within the last decade. When the statistics of the last federal census were made public a little over two years ago, widespread attention was attracted toward Flint, because of the fact that it was accorded the distinction of having outstripped all other cities of its class in the United States in growth of population and industrial prestige during the decennial period from 1900 to 1910. During that time Flint increased in population from 13,103 to 38,550, and to-day it has a population of more than 42,000. This remarkable growth naturally entailed many new responsibilities that had to be met by the city.

CIVIC IMPROVEMENT

During this period 6,000 houses were erected, and this meant the opening and improvement of many new streets and greatly increased sewer facilities. Much has already been done in keeping pace with the growth of the city in the matter of public improvements, and that much more is to be done in the immediate future is evidenced by the fact that at a special election held this spring nearly $300,000 was voted by the taxpaying electors to be placed at the disposal of the city administration for the building of new pavements, the improvement of streets in the residential sections of the city and the construction of additional sewers. In addition to this public work, the board of education has been active in

City Hall

providing increased school facilities, and to-day there is in process of completion a new school building in the Sixth Ward, costing $75,000; ground has been broken for a $70,000 school building in Homedale subdivision and plans are being prepared for another modern structure that is to be a duplicate of the Homedale school build-

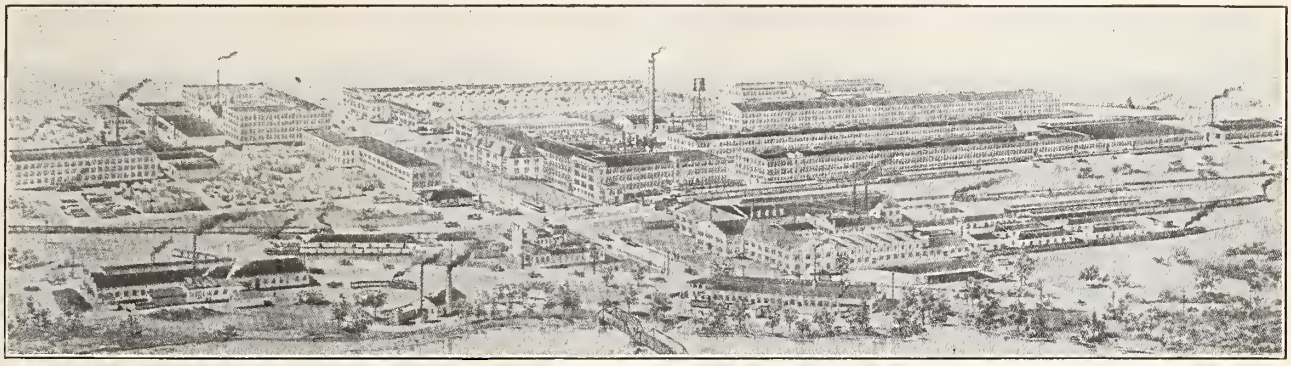
ing. Thus the city is meeting its obligations to its rapidly increasing citizenship in regard to public conveniences and educational facilities, and it is now turning its attention to the welfare

Michigan School for the Deaf

of its youth and young manhood, as has already been indicated in the introduction of this article. A Young Men's Christian Association and home has been in successful operation for the past two or three years, and now the boys and young men of the city are to be similarly taken care of through the erection of a Young Men's Christian Association building that will be one of the finest and best equipped institutions of its kind in the state of Michigan.

AUTOMOBILE INDUSTRIES

Flint is the home of the largest automobile plant in the world—the Buick—and is the hub of a circle embracing seven Michigan automobile manufacturing cities — Detroit and Pontiac on the southeast, Jackson and Lansing on the southwest, Owosso on the west, Saginaw on the north and Port Huron on the east; all within a radius of seventy miles of Flint. Time was when lumbering was the principal industry of the city, but the saw mills that formerly lined the banks of Flint river have long since passed away. Then came the carriage industry, which placed Flint in the foremost of the vehicle field, but while the manufacture of carriages still constitutes an important factor in the industrial prestige of the city, the building of automobiles has taken rank as the leading indutry. The Buick, with its army of between 5,000 and 6,000 skilled mechanics, its total floor space of fifty-eight acres, and its grounds covering an area of 150 acres, that only a few years ago was farm land located outside of the city limits, wields its giant industrial arm in the manufacture of 30,000 cars annually, and besides this mammoth institution there are the Paterson, the Little and the Chevrolet factories employing a large number of workmen and producing cars that have helped to make Flint famous as an automobile center. Next in importance to the automobile and carriage activities of the city is the manufacture of cigars, for which Flint has long been famous. This industry employs hundreds of high-class workmen and produces annually about 12,000,000 cigars.



Buick Motor Company

PUBLIC BUILDINGS

The city government has at its head a practical and successful business man, Mayor Charles S. Mott, president of a company which employs

Brown Hall, School for the Deaf

2,200 men. Under his progressive administration Flint has made remarkable strides the past year in the way of pavement and sewer building and the acquisition of other public improvements.

During the same period there has been in process of construction a $400,000 pumping station and filtration plant, which will be in operation this summer, furnishing pure water to the inhabitants of the city. The progressive policy of the municipal government has also been reflected in the recent withdrawal of horse-drawn equipment from the central fire station and the substitution of complete equipment of motor-driven apparatus. There are three other fire stations which are partially equipped with motor-driven apparatus, which will ultimately entirely replace the horse-drawn equipment in the city fire department.

Unexcelled schools and churches contribute to the welfare and peace and contentment of the community, and in other respects Flint offers advantages and attractions that make for wholesome and helpful living conditions. Its resident streets are lined by beautiful homes and well-kept lawns, and its shade trees form an almost unbroken canopy over the city when in full foliage. Its public buildings and institutions include the county court house, the city hall, the Masonic Temple, the Carnegie Library, the Young Women's Christian Association building, the federal postoffice building; all erected within the past eight years, and the Michigan School for

Masonic Temple

the Deaf. Work has been commenced for the foundation for a fine Elk's Temple to cost in the neighborhood of $70,000, and as has been noted, the latest expression of public spirit on the part of the citizens of Flint is about to take on material form in the erection of a Y. M. C. A. home.

AREA AND PARKS

Flint covers an area of 12.83 square miles and is between 700 and 800 feet above sea level. It has 150 miles of streets; 12 miles of which in the business section are already paved, with an additional 12 miles to be paved during the present

W. S. Post Office

year; 42 miles of public sewers, with provision made for greatly increasing the present sewerage facilities; 8 miles of electric street railway and 50 miles of gas mains. The city has nine public parks, comprising a total of 41 acres, and a comprehensive boulevard system, planned by an expert, is in process of development and will ultimately connect all the public parks. A recent addition to the park system is the homestead property of the late Dr. James C. Willson, one of the pioneer physicians of Genesee County, which was acquired by purchase this year and is a delightful breathing spot in the heart of the city. Thread Lake Park and Water Works Park are situated, respectively, in the south end and north end of the city, and on alternate Sunday afternoons the Salvation Army Band, one of the best musical organizations of the state, gives free open-air concerts under the auspices of the City Park Board and the Board of Commerce, besides giving concerts on Wednesday evenings in the downtown business section of the city. The places of amusement include Lakeside Park, on the banks of Thread Lake; an opera house playing standard attractions, two smaller playhouses and half a dozen moving picture theaters.

GENESSEE COUNTY

Flint is favorably located in one of the most productive and prosperous counties of the state of Michigan. Genessee County is rich in products of soil, for which Flint, as the county seat, is the natural market. Its farmers are intelligent

and progressive, and its broad acres are dotted with pleasant rural homes and substantial farm building. It has a solid system of rural free delivery and is traversed by rural telephone lines radiating from the city in all directions. It is now engaged in building a system of permanent highways, under a bonding proposition involving $500,000, which was approved at the election last spring by a heavy majority. It is alert and progressive along other lines and constitutes a strong support to the business interests of the city.

TRANSPORTATION FACILITIES

Flint is also well favored in the matter of transportation facilities, being on the main lines of the Grand Trunk and Pere Marquette steam railroads, extending east and west, and north and south; while additional passenger and freight service north and south is afforded by the Detroit United and the Saginaw & Flint electric railways.

BANKS

The banking interests of Flint are extensive and in conservative and safe hands. There are four state banks and one national bank, and all are operated on a sound financial basis. In this connection it is significant of the material prosperity of the city that the bank clearing for 1912 was $21,310,000, as compared with $19,825,000 for the preceding year. Two other significant facts concerning Flint are that its average daily wage of $2.82 is the highest in Michigan, and its tax rate of $19.70 per $1,000 of assessed valuation is the lowest in the state.

BUSINESS AND PROFESSIONAL MEN

Flint has as fine a class of business and professional men as are to be found in the country. They work together in a spirit of helpfulness and loyalty to the general business interests of the city, and when such an occasion as the recent Y. M. C. A. campaign arises, they may be counted on to work vigorously and harmoniously together with a common purpose of furthering the interests of the city. This is a feature of industrial, commercial and professional life in Flint that has been an important factor in making it what it is to-day—a great industrial city, with a still greater future stretching out before it and beckoning it on to higher achievements than have yet been attained in the comparatively recent period of its greatest growth and prosperity.

One of Flint's Many Modern School Buildings

Hurley Hospital

Founded by James J. Hurley and bearing his name, Flint's municipal hospital, one of the best equipped and most modern hospitals in the state of Michigan, is an institution of which any city might well feel proud.

Located on high ground just within the western limits of the town, its situation commands a view of the surrounding country and constitutes an ideal spot for a hospital.

BUILDINGS

The buildings are of colonial design, the architectural effect being one of simplicity and elegance. A two-story administration building with three wings, those on the north and south con-

nected with the main building by bright, sunny corridors, constitute the original hospital. A basement extending under the main building, west wing and corridors, furnish space for dining rooms, kitchens, store-rooms, laundry and boiler rooms. During the past year additional accommodation for patients has been added by raising the west wing and connecting it with the upper floor of the main building, in which are located three splendidly equipped operating-rooms, two for general work and one for the specialties of eye, ear, nose and throat. The new addition increases the capacity of the hospital by seven private rooms and eight ward beds.

The north wing, in which is located the women's ward with ten beds, furnishes accommodations also for eight private room patients. The south wing, containing a ward for men with fourteen beds, contains five private rooms.

OWNERSHIP AND STAFF

Hurley Hospital is owned and operated by the city of Flint, and is managed through a board of five members appointed by the Common Council. The superintendent is Miss Anna M. Schill, graduate of the Grace Hospital, Detroit. There is no medical staff, all physicians of the county having equal privileges in the use of its operating rooms and other equipment. From Dec. 19, 1908, the date of opening the hospital, to Feb. 28, 1913, the end of the last fiscal year, 2,937 patient had been admitted to the institution.

The Oak Grove Hospital, Flint

The corporation of Oak Grove was organized in 1891, under the laws of Michigan. The object of the founders was the construction and

Hurley Hospital

TRAINING SCHOOL

Until within the last year, the nurses of the training school were provided with quarters in the main building and in rented rooms in the neighborhood. Last October there was opened for their use a beautiful new home just north of the hospital, on the hospital grounds, the furnishings of the home being the gift of the late Dr. James C. Willson, well known to and beloved by the medical profession of Michigan. The home, built along colonial lines to correspond with the architecture of the hospital, is of three stories. The material used in its construction is red brick like that in the original buildings.

The present total value of the hospital property is over one hundred thousand dollars. This will be increased next year by the addition of a large ward for the care of children and for maternity work. The need for a contagious disease cottage must also be met before long.

equipment of a thoroughly modern hospital wherein nervous and mental diseases, and alcoholic and drug addiction, might be treated by the most approved methods.

THE GROUNDS

A 60-acre grove of native oaks, located on the eastern margin of the city of Flint, was selected as a site. These magnificent trees, many of them centuries old, comprise what is now, in all probability, the last remaining oak clearing of its size in Michigan. This park had been preserved by the late Henry H. Crapo, a distinguished governor of the state and a citizen of Flint, his intention being to erect a mansion in its midst.

THE BUILDINGS

In this ideal location four buildings were opened for the reception of patients in the summer of 1891. Since this time, continuous growth and increasing demands have necessitated the

addition of new structures, until the present group consists of seven, exclusive of cottages, out-buildings, stables and garage.

All buildings are of pressed brick and slate

Oak Grove Sanitarium

construction. The pivotal structure of the group is the administration building. This contains, on its first floor, the reception hall, reception room, medical and executive offices, laboratory and dispensary. The second floor is occupied by the apartments of the medical director. The third provides guest rooms and quarters for other members of the medical staff.

To the east of the administration building and connected with it by a semicircular, glass enclosed corridor, is the department for women. To the west, connected with the administration building by a similar corridor, is the department for men. Each of these departments consists of two buildings, the larger being assigned to nervous, neurasthenic and convalescing patients, and the

East from Women's Department

smaller to the acute insane. In each of the larger buildings the first and second floors are devoted to the care of patients. The third provides quarters for nurses. Each floor contains ten sleeping apartments, baths, halls and a parlor. Rooms are arranged for use singly, or en suite with bath.

The Parterre Building, for acute cases (women) was erected in 1900. A glass enclosed corridor, 60 feet in length, connects it with the administration building. The first floor is devoted to the care of patients and contains six rooms, in addition to a diet kitchen, hydrotherapeutic and massage room and parlor. The second floor is assigned to women nurses and contains separate sleeping apartments and a parlor.

The Ormeau Building for men, erected in 1906, provides similar care for acute cases. It contains on its first floor ten patients' bedrooms, parlors, diet kitchen, tub and shower baths and massage room. The second floor is occupied by rooms for men nurses. This building has several

Administration Building

spacious verandas and a charming outlook on the south grove. Like the Parterre Building for women, it permits a more satisfactory classification of patients, facilitates the care of restless and disturbed cases and adds materially to the comfort of the convalescent and quiet.

All rooms throughout the institution are heated by indirect radiation and ventilated by flues. In some additional heating facilities are provided by fireplaces. Interior furnishings throughout are of a character calculated to please those of cultivated tastes.

Noyes Amusement Hall, erected in 1895, contains a music room, a lounging and smoking room, a billiard, pool and card room, dancing hall, bowling alley and gymnasium. There are also Turkish and Russian baths, a room equipped for electrotherapy and complete Baruch hydrotherapeutic apparatus.

Heating facilities and electric light are provided by a plant erected for the purpose in 1907.

The water-supply is derived from an artesian well, located on the grounds. The hospital has a thoroughly modern plant for refrigerating and ice manufacture. Each department of the household has a general dining room. Appointments and service are dainty and the cuisine excellent.

THE MANAGEMENT

The executive management of the hospital is vested in a board of directors of which the following are members:

Women's Department

Mr. George B. Remick, Detroit, president.
Dr. W. H. Sawyer, Hillsdale, vice-president.
Dr. C. B. Burr, Flint, secretary.
Mr. W. O. Smith, Flint, treasurer.
Mr. Jerome H. Remick, Detroit.
Mr. C. M. Begole, Flint.
Dr. H. R. Niles, Flint.
Mr. Wm. A. Butler, Jr., Detroit.
Dr. E. A. Christian, Pontiac.
Mr. Stanford T. Crapo, Detroit.

THE MEDICAL STAFF

The internal management of the hospital is strictly professional. The resident medical staff consists of three members as follows:

C. B. Burr, M.D., medical director.
H. E. Clarke, M.D., assistant medical director.
P. M. Crawford, M.D., assistant physician.

Corridor to Men's Department

Dr. C. B. Burr, formerly superintendent of the Pontiac State Hospital, has been for thirty-four years exclusively engaged in the treatment of nervous and mental diseases.

Dr. H. E. Clarke, also a former member of the staff of the Pontiac State Hospital, has been for twelve years in the specialty.

Elm Magnificent

Each patient receives the daily attention of the medical director, also two visits from each assistant. An efficient nursing force is maintained. The hospital has been perhaps more than usually successful in retaining the services

of capable nurses and many of the present force have a record of faithful service extending over a number of years.

Provision is made for amusements in large variety. Secluded and private walks, and the natural beauties of the grounds invite patients to outdoor exercise. Motor and carriage service is also provided. The croquet plats, tennis courts and golf links prove attractive to many. In the eastern part of the grounds may be found "Elm Magnificent" worthy of special notice. Among the indoor amusements are dancing and card parties, bowling, pool and billiards, music and motion picture entertainments.

During the twenty-two years it has been in operation, the hospital has cared for patients representing nearly every state in the Union, the provinces of Ontario and Quebec and the republic of Mexico. Conscientious professional work, with freedom from distracting influences and institutional features, have made possible a degree of success in the treatment of these difficult cases, which has been substantially augmented by the cooperation and support of the medical profession, especially those of its members interested in patients under care.

Preliminary Program

OFFICIAL CALL

The Forty-Eighth Annual Meeting of the Michigan State Medical Society will be held in Flint, Genessee County, Michigan, on Thursday and Friday, September 4 and 5, 1913. The Fifth Annual Meeting of the County Secretaries' Association will be held on Wednesday afternoon, September 3, at 3 p. m. The Council will meet in regular session on Wednesday evening, September 3, at 8 o'clock.

Walter H. Sawyer, President.
Frederick C. Warnshuis, Secretary.

PLACE OF MEETING

The General Session, the House of Delegates and all Scientific Sessions will meet in the Masonic Temple. The exhibitions will also be located in this building. The County Secretaries' Association will meet in the Masonic Temple at 3 p. m., September 3. The first session of the Council will be held in the parlor of the Hotel Dresden Wednesday evening, September 3, at 8 p. m.

THE COUNCIL

Chairman, William T. Dodge, Big Rapids.
Vice-Chairman, A. E. Bulson, Jackson.
Secretary, Frederick C. Warnshuis, Grand Rapids.

Meetings

Wednesday, September 3, at 8 p. m.
Thursday, September 4, at 12 m.
Friday, September 5, at 12 m.

HOUSE OF DELEGATES

Masonic Temple.

President, Walter H. Sawyer, Hillsdale.
Secretary, Frederick C. Warnshuis, Grand Rapids.

By-Laws—Chapter IV, Section 1. Each component county society shall be entitled to send to the House of Delegates each year one delegate and one alternate for every fifty members, and one delegate for each major fraction thereof; but each county society holding a charter from this society, which has made its annual report as provided in the Constitution and By-Laws, shall be entitled to one delegate and one alternate.

First Session, Thursday, September 4th

8:00 A. M.

Order of business:

1. Call to order by the President.
2. Report of Committee on Credentials.
3. Roll Call.
4. Reading of the minutes of the last Annual Meeting.
5. Report of the Council.
   W. T. Dodge, Big Rapids, Chairman.
6. Report of the Committee on Legislation and Public Policy.
   E. T. Abrams, Dollar Bay, Chairman.
7. Report of the Committee on Fee Splitting.
   C. B. Stockwell, Port Huron, Chairman.
8. Report of the Committee on Public Health Education.
   Frances Rutherford, Grand Rapids, Chairman.
9. Report of the Committee on the Study and Prevention of Tuberculosis.
   Collins H. Johnston, Grand Rapids, Chairman.
10. Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State.
    Walter R. Parker, Detroit, Chairman.
11. Report of the Committee on Medical Education.
    David Inglis, Detroit, Chairman.
12. Report of the Committee on Venereal Prophylaxis.
    A. P. Biddle, Detroit, Chairman.
13. Report of the Delegates to the American Medical Association.
    E. T. Abrams, Dollar Bay, Chairman.
14. Report of the Committee on Specialties.
    Emil Amberg, Detroit, Chairman.
15. Election of Committee on Nominations.
    The duty of this committee is to nominate:
    (a) 1st, 2d, 3d and 4th Vice-Presidents.
    (b) To nominate one delegate and one alternate delegate to the House of Delegates of the American Medical Association to succeed E. T. Abrams, whose term expires
    (c) To nominate Councilors for the 2d, 8th, 9th and 12th districts.
    (d) To fix the place of meeting for 1914.
    By-Laws—Chapter VI, Section 2. The House of Delegates shall elect annually, at its first meeting, a Nominating Committee of five from the House of Delegates; no two of whom shall be from the same Councilor District.
16. Appointment of Business Committee and other working committees by the President.

17. Miscellaneous Business.
    (a) Recommendations of the Council.
    (b) Proposal of amendments to the Constitution and By-Laws.
18. New Business.
19. Adjournment to the General Session.

Second Session, Friday, September 5th

8:00 A. M.

1. Roll Call.
2. Reading of Minutes of Previous Session.
3. Report of Business Committee.
4. Reports of Appointed Committees.
5. Report of the Committee on Nominations.
6. Election of Officers.
7. Unfinished Business.
8. Miscellaneous Business.

Adjournment to Section Meetings.

GENERAL MEETING

Thursday, September 4th

10 A. M.

Masonic Temple Auditorium.

President—Walter H. Sawyer, Hillsdale.
Secretary—Frederick C. Warnshuis, Grand Rapids.

1. Call to order by the President.
2. Invocation.
3. Address of Welcome by C. S. Mott, Mayor.
4. Address of Welcome by Noah Bates, President Genessee County Society.
5. Response on Behalf of State Society by Walter H. Sawyer, President.
6. Report of the Committee on Arrangements. H. E. Randall, Flint.
7. Report of the House of Delegates by the Secretary.
8. Annual Address of the President, "District Supervision of Public Health." Walter H. Sawyer, Hillsdale.
9. Address, Woodbridge N. Ferris, Governor, State of Michigan.
10. Miscellaneous Business. Under this head there will be a general discussion of questions of medical economics. The opportunity is presented to every member to bring before the entire Society any subject of general interest, either by informal discussion or formal resolution.

Nominations for President for 1913-1914.
Adjournment.

SECOND GENERAL SESSION

Friday, September 5th

11:30 A. M.

1. Reading of Minutes.
2. Unfinished Business.
3. Report from the House of Delegates.
4. Miscellaneous Business. Another opportunity is given to present to the attention of the general body questions of general interest.
5. Announcement of the Committee on Nominations of the result of the ballot for President.
6. Introduction and Installation of the President-elect.
7. Resolutions.
8. Adjournment *sine die.*

COUNTY SECRETARIES' ASSOCIATION

Fifth Annual Meeting

Wednesday Afternoon, September 3d
3:00 P. M.

Masonic Temple

President—Charles E. Boys, Kalamazoo.
Secretary—C. T. Southworth, Monroe.

ORDER OF BUSINESS

1. Call to order by the President.
2. Roll Call.
3. President's Address. Charles E. Boys, Kalamazoo.
4. Address by President of the State Society, Walter H. Sawyer, Hillsdale.
5. Paper. (Subject to be announced.) Roland Clark, Wayne County.
6. Address by the Secretary of the American Medical Association. Alex. R. Craig, Chicago.
7. Paper, "Shall the Programs of the County Meetings Be Made Up of Home Talent or by Invited Guests Outside the County?" E. M. Highfield, Gratiot County.
8. Dinner as Guests of the State Council.

NOTE.—No discussers have been selected to open the discussion of the papers. It is expected that every secretary will participate in the discussion. During the dinner an opportunity will be presented to discuss the various problems with which the county secretary has to contend and to ascertain how the secretary of the other county accomplishes his work. No secretary can afford to miss this meeting. No county should neglect to insist that its secretary attend this meeting.

SCIENTIFIC SECTIONS MEETINGS

By-Laws—Chapter III, Section 3. Except by special vote the order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed. No paper shall be read by title nor read by any other person than its author, except as a result of sickness of the author, or by the unanimous vote of the Section to which it belongs.

Sec. 4. No address or paper before the Society, except that of the President, shall occupy more than fifteen minutes in its delivery; and no member shall speak more than five minutes or more than once on any subject.

Sec. 5. All papers read before the Society shall be its property. Each paper read shall be immediately deposited with the Secretary of the Section.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Chairman—Eugene Smith, Detroit.
Secretary—H. Beach Morse, Bay City.

(As soon as a paper has been read it is to be filed with the secretary.)

First Session, Thursday Afternoon, September 4th

1:45 P. M.

1. Chairman's Address. EUGENE SMITH, Detroit.
2. Paper. C. H. BAKER, Bay City.
3. "Injuries to the Head and Ear Disturbances." EMIL AMBERG, Detroit.
4. "Report of Seventy-Five Cataract Extractions." D. EMMETT WELSH, Grand Rapids.
5. Paper. WILFRID HAUGHEY, Battle Creek.

Second Session, Friday Morning, September 5th

9:00 A. M.

6. "Acute Pharyngitis." B. N. COLVER, Battle Creek.
7. Paper. DON M. CAMPBELL, Detroit.
8. Personal Experiences with the Submucous Operation." ANNA O'DELL, Detroit.

Adjournment to the General Session at 11:30 a. m.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers.

9. "Trephine Operations in the Treatment of Glaucoma." WALTER H. PARKER, Detroit.
10. "The Relation of Ocular Symptoms to Remote Disorders." P. J. LIVINGSTON, Detroit.
11. Paper.
12. Paper.

SECTION ON GENERAL MEDICINE

Chairman—James Cleland, Jr., Detroit.

Secretary—Benj. A. Shepard, Kalamazoo.

First Session, Thursday Afternoon, September 4th

1:45 P. M.

(The Secretary of the Section will collect all papers as soon as they are read.)

1. Chairman's Address. JAMES CLELAND, Jr., Detroit.
2. "The Attitude of the General Practitioner Toward the Tuberculosis Problem." J. B. JACKSON, Kalamazoo.
3. "The Diagnosis and Treatment of Tuberculosis. Lantern Slide Demonstration." O. W. MCMICHAEL, Chicago.
4. "The X-Ray Diagnosis of Diseases of the Lungs. Lantern Slide Demonstration." A. W. CRANE, Kalamazoo.

Second Session, Friday Morning, September 5th

9:00 A. M.

5. "Spasmophilia." COLLINS H. JOHNSTON, Grand Rapids.
6. "The Present Status of Salvarsan in the Treatment of Syphilis." H. R. VARNEY and R. C. JAMIESON, Detroit.
7. Paper. (Subject to be announced later.) FRANK C. PENNOYAR, South Haven.
8. "Nervousness in Children." THEOPHIL KLINGMAN, Ann Arbor.
9. "The Need of a Differential Diagnosis of Type of Diphtheritic Bacillus in the Management of the Disease." BLANCH EPLER, Kalamazoo.

Adjournment to General Session.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers of Section for coming year.

10. "Heart Block with Report of Case." MARTIN A. MORTENSON, Battle Creek.
11. "Presentation and Discussion of Specimens Illustrating Endocarditis Caused by Streptococcus Viridans and the Streptococcus Rheumaticus and Points of Difference in their Clinical Manifestations. ROBERT H. BABCOCK, Chicago.
12. Paper. (Subject to be announced.) J. B. WHINERY, Grand Rapids.

SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman—Ernest K. Cullen, Detroit.

Secretary—Walter Manton, Detroit.

(The secretary will collect all papers as soon as they are read.)

First Session, Thursday Afternoon, September 4th

1:45 P. M.

1. "Movable Kidney." E. T. ABRAMS, Dollar Bay.
2. "Early Diagnosis of Uterine Cancer." J. H. CARSTENS, Detroit.
3. "The Transposition Operation in Treatment of Cystocele." The result of fifteen years' experience. THOMAS J. WATKINS, Chicago.
4. Subject to be announced. REUBEN PETERSON, Ann Arbor.
5. "Chronic Appendicitis in Which the Signs and Symptoms Are Not Directly Referable to the Appendix." WM. F. METCALF, Detroit.

Second Session, Friday Morning, September 5th

9:00 A. M.

6. "Report of a Case of Placenta Previa." W. H. MORELY, Detroit.
7. Subject to be announced. W. P. MANTON, Detroit
8. "The Treatment of Nausea and Vomiting in Pregnancy." THOMAS J. LYNCH, Chicago.
9. "The Heart in Pregnancy." HUGO A. FREUND, Detroit.

Adjourn to General Session.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers.

10. "Stenosis of the Uterine Cervix." F. MATTHEWS, Detroit.
11. "Gall-Stones First Discovered at the Time of Pelvic Operation." ANGUS MCLEAN, Detroit.
12. "Vaginal Celiotomy in Ectopic Pregnancy." H. E. RANDALL, Flint.
13. "Pulmonary and Laryngeal Tuberculosis in Pregnancy." BENJ. R. SCHENCK, Detroit.
14. Subject to be named. R. R. SMITH, Grand Rapids.

SECTION ON GENERAL SURGERY

Chairman—Robert J. Hutchinson, Grand Rapids.

Secretary—R. C. Stone, Battle Creek.

(The secretary will collect all papers as soon as they are read.)

First Session, Thursday Afternoon, September 4th

1:45 P. M.

1. Chairman's Address.
R. J. HUTCHINSON, Grand Rapids.
2. "Tuberculous Peritonitis."
D. E. ROBINSON, Jackson.
3. "Supra-Pubic Prostatectomy."
ANGUS MCLEAN, Detroit.
4. Subject to be announced.
EDWARD JUDD, Mayo Clinic, Rochester, Minn.
5. "Bone-Grafting for Pott's Disease and Ununited Fractures." MAX BALLIN, Detroit.
6. "The Abdominal Skin Reflexes in Acute Inflammatory Conditions of the Abdomen and their Significance." RICHARD R. SMITH, Grand Rapids.

Second Session, Friday Morning, September 5th

9:00 A. M.

7. "Direct Blood Transfusion."
WALTER VAUGHAN, Detroit.
8. Subject to be announced.
M. L. HARRIS, Chicago.
9. "X-Ray Aid in the Recognition of Gastric and Duodenal Ulcers." J. T. CASE, Battle Creek.
10. "The Present Status of X-Ray in Diseases of the Stomach."
P. M. HICKEY AND CHAS. D. AARON, Detroit.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers.

11. Subject to be announced.
FRED M. COLE, Detroit.
12. "The Injection of Boiling Water in the Treatment of Hyperthyroidism."
MILES F. PORTER, Fort Wayne, Ind.
13. Subject to be announced.
WILLIAM FULLER, Chicago.
14. Subject to be announced.
DEAN LEWIS, Chicago.
15. "Internal Medicine as the Basis of Good Surgery."
H. B. GARNER, Detroit.

INVITED GUESTS

For this issue we are but mentioning the names of the invited guests of the society who will appear before the various scientific sections. In the September JOURNAL we will endeavor to give a little personal history of each one of these guests. The following are the men from outside of the state who will be the guests of the society at the Flint meeting:

Woodbridge N. Ferris, Governor of the State of Michigan.
Dr. Edward Judd, Mayo Clinic, Rochester, Minn.
Dr. M. L. Harris, Chicago, Ill.
Dr. Dean Lewis, Chicago, Ill.
Dr. Thomas J. Watkins, Chicago, Ill.
Dr. Miles F. Porter, Fort Wayne, Ind.
Dr. Thomas J. Lynch, Chicago, Ill.
Dr. Robert H. Babcock, Chicago, Ill.
Dr. O. W. Michael, Chicago, Ill.

ENTERTAINMENT

Wednesday Evening, September 3d.—Informal smokers at the hotels. It will be necessary for the members of the Council, the House of Delegates and the County Secretaries to arrive in Flint during the afternoon of the 3d in order that they may attend the first sessions of their respective meetings. These smokers have been provided for them and for the early arriving members.

Thursday Afternoon, 4:30 o'clock.—Visit to the Buick automobile plant.

Thursday Evening, 8 o'clock.—President's reception. On the lawn of the Oak Grove Hospital. To be followed by a dance.

FOR THE VISITING LADIES

Thursday Afternoon.—The ladies will be entertained at the Country Club.

Thursday Evening.—President's reception and dance.

Friday Afternoon.—Automobile rides around Flint.

REGISTRATION

The members are requested to register as soon as possible after their arrival. The Registration Bureau will be located in the main entrance of the Masonic Temple.

PRIVATE ROOMS AND BOARDING PLACES

The Entertainment Committee assure us that they will be able to comfortably care for every member that attends. First-class rooms in private homes may be secured by addressing: Dr. F. B. Miner, 400 South Saginaw street, Flint, Mich.

HOTELS OF FLINT

Hotel Dresden, official headquarters, 300, American. Rate, $2.50 up.

Hotel Bryant, 100, American. Rate, $2.25 up.

Hotel Reed, 64, American. Rate, $1.25 up.

Hotel Crystal, 62, American. Rate, $1.25 up.

Hotel Dayton, 46, American. Rate, $1.25 up.

Chairman Hotel Committee, Dr. W. G. Bird, Flint.

Chairman Private Rooms Committee, Dr. F. B. Miner, 400 South Saginaw street, Flint.

AUTOMOBILE ROUTES

The Automobile Blue Book contains practically every route to Flint, so that it has been deemed unnecessary to devote space to the publishing of these detailed routes in THE JOURNAL.

AUTOMOBILE GARAGES

Storage Rates.

Flint Garage, 913-915 South Saginaw street. Storage, 50 cents per night.

Auto Sales and Supply Company, corner Court and Saginaw streets, 75 cents per night.

Park Garage, corner Detroit and E. Second avenue, 50 cents per night.

Automobile Exchange, 514 North Saginaw street, 50 cents per night.

Gasoline, oil, wash and polish at standard rates.

HOUSE OF DELEGATES.—DELEGATES AND ALTERNATES TO THE FORTY-EIGHTH ANNUAL MEETING

Note.—The black-face type is that of the delegate; the other that of the alternate.

ALPENA—Branch No. 46

C. M. Williams, Alpena.
D. A. Cameron, Alpena.

ANTRIM—Branch No. 65

(One delegate.)

BARRY—Branch No. 26

(One delegate.)

BAY—Branch No. 4

J. W. Gustin, Bay City.
J. C. Grosjean, Bay City.

BENZIE—Branch No. 59

G. O. Edmunds, Honor.
E. J. C. Ellis, Benzonia.

BERRIEN—Branch No. 50

L. A. King, Baroda.
R. C. Allen, St. Joseph.

BRANCH—Branch No. 9

A. G. Holbrook, Coldwater.
W. A. Griffith, Coldwater.

CALHOUN—Branch No. 1

R. D. Sleight, Battle Creek.
W. H. Haughey, Battle Creek.

CASS—Branch No. 36

Edgar A. Planc, Union.
Wm. C. McCutcheon, Cassopolis.

CHARLEVOIX—Branch No. 37

(One delegate.)

CHEBOYGAN—Branch No. 58

Chas. B. Tweedale, Cheboygan.

CHIPPEWA—Branch No. 35

James J. Lyon, Sault Ste. Marie.
J. A. Ferguson, Rudyard.

CLINTON—Branch No. 39

M. Weller, St. Johns.
J. E. Taylor, Ovid.

DELTA—Branch No. 38

M. P. Fenelon, Escanaba.
A. L. Laing, Escanaba.

DICKINSON - IRON—Branch No. 56

(One delegate.)

EATON—Branch No. 10

W. H. Rand, Charlotte
A. H. Burleson, Olivet.

EMMET—Branch No. 41

J. H. Charters, Boyne City.
J. J. Reycraft, Petoskey.

GENESEE—Branch No. 24

A. J. McReynolds, Flint.
W. J. Wall, Avoca.
Henry Cook, Flint.
H. D. Knapp, Flint.

GOGEBIC—Branch No. 52

L. O. Houghten, Ironwood.
E. Madajesky, Bessemer.

GRAND TRAVERSE - LEELANAU—Branch No. 18

(One delegate.)

GRATIOT—Branch No. 25

W. M. Drake, Breckenridge.
L. A. Howe, Breckenridge.

HILLSDALE—Branch No. 3

T. H. E. Bell, Reading.
C. T. Bower, Hillsdale.

HOUGHTON—Branch No. 7

(One delegate.)

HURON—Branch No. 47

Sheldon B. Young, Caseville.
E. E. E. Yale, Pigeon.

INGHAM—Branch No. 40

B. M. Davey, Lansing.
Seth Jones, Lansing.

IONIA—Branch No. 16

J. J. McCann, Ionia.
E. W. Lytle, Belding.

ISABELLA - CLARE—Branch No. 54

C. M. Baskerville, Mt. Pleasant.
S. E. Gardiner, Mt. Pleasant.

JACKSON—Branch No. 27

Peter Hyndman, Jackson.
C. D. Munro, Jackson.

KALAMAZOO—Branch No. 64

G. F. Inch, Kalamazoo.
A. I. Noble, Kalamazoo.
C. H. McKain, Vicksburg.
H. Ostrander, Kalamazoo.
E. P. Wilbur, Kalamazoo.
W. F. Hoyt, Paw Paw.

KENT—Branch No. 49
N. M. Kassabian, Coopersville.
J. D. Brook, Grandville.
F. J. Lee, Grand Rapids.
Collins H. Johnston, Grand Rapids.

LAPEER—Branch No. 23
Peter Stewart, Hadley.
J. P. Eggleston, Imlay City.

LENAWEE—Branch No. 51
W. B. Sprague, Palmyra.
R. E. Eccles, Blissfield.

LIVINGSTON—Branch No. 6
R. H. Baird, Howell.
C. E. Skinner, Howell.

MACOMB—Branch No. 48
H. F. Taylor, Mt. Clemens.
E. G. Folsom, Mt. Clemens.

MANISTEE—Branch No. 19
James A. King, Manistee.
R. J. Kirkland, Manistee.

MARQUETTE - ALGER—Branch No. 28
A. W. Hornbogen, Marquette.
T. A. Felch, Ishpeming.

MASON—Branch No. 17
(One delegate.)

MECOSTA—Branch No. 8
George H. Lynch, Big Rapids.
A. A. Spoor, Big Rapids.

MENOMINEE—Branch No. 55
R. G. Marriner, Menominee.
Edward Sawbridge, Stephenson.

MIDLAND—Branch No. 43
(One delegate.)

MONROE—Branch No. 15
V. Sisung, Monroe.
W. F. Acker, Monroe.

MONTCALM—Branch No. 13
M. E. Danforth, Stanton.
F. A. Johnson, Greenville.

MUSKEGON - OCEANA—Branch No. 61
F. B. Marshall, Muskegon.
George S. Williams, Muskegon.

NEWAYGO—Branch No. 60
N. De Haas, Fremont.
Willis Geerlings, Reeman.

OAKLAND—Branch No. 5
George McKinnon, Oxford.
H. A. Sibley, Pontiac.

O. M. C. O. R. O.—Branch No. 11
C. C. Curnalia, Roscommon.
L. A. Harris, Gaylord.

ONTONAGON—Branch No. 66
(One delegate.)

OSCEOLA - LAKE—Branch No. 30
H. L. Foster, Reed City.
A. Holm, Leroy.

OTTAWA—Branch No. 32
(One delegate.)

PRESQUE ISLE—Branch No. 63
B. G. Larke, Rogers City.
W. W. Arscott, Rogers City.

SAGINAW—Branch No. 14
G. H. Ferguson, Saginaw.
D. E. Bagshaw, Saginaw.

SANILAC—Branch No. 20
James A. Fraser, Lexington.
James W. Scott, Sandusky.

SCHOOLCRAFT—Branch No. 57
Andrew Nelson, Manistique.
S. H. Rutledge, Manistique.

SHIAWASSEE—Branch No. 33
George P. Sackrider, Owosso.
A. M. Hume, Owosso.

ST. CLAIR—Branch No. 45
George S. Ney, Port Huron.
M. E. Vrooman, Port Huron.

ST. JOSEPH—Branch No. 29
J. H. Moe, Sturgis.
R. D. Runyan, Sturgis.

TRI-COUNTY—Branch No. 62
O. L. Ricker, Cadillac.
W. J. Smith, Cadillac.

TUSCOLA—Branch No. 44
H. A. Bishop, Millington.
H. S. Karr, Akron.

WASHTENAW—Branch No. 42
J. A. Wessinger, Ann Arbor.
John W. Keating, Ann Arbor.
Wm. Blair, Ann Arbor.
R. Bishop Canfield, Ann Arbor.

WAYNE—Branch No. 2
J. W. Vaughan, Detroit.
Guy L. Kiefer, Detroit.
Walter Ford, Detroit.
F. B. Walker, Detroit.
J. E. King, Detroit.
E. W. Haass, Detroit.
W. J. Wilson, Jr., Detroit.
J. Stanley Miner, Detroit.
A. N. Collins, Detroit.
Hugo A. Freund, Detroit.
A. D. Holmes, Detroit.
F. B. Robbins, Detroit.
Ray Connor, Detroit.
L. J. Hirschman, Detroit.
Angus McLean, Detroit.
Howard Loongyear, Detroit.
R. E. Jamieson, Detroit.
R. L. Clark, Detroit.
H. W. Hewett, Detroit.
C. G. Jennings, Detroit.

The JOURNAL
of the
Michigan State Medical Society
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All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to Frederick C. Warnshuis, M.D., 91 Monroe Ave., Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

AUGUST

Editorials

CONTACT CASES OF TYPHOID FEVER

Our experience in Alpena has demonstrated that in an epidemic of typhoid fever in a city, insufficient attention is paid to cases that develop by contact. A study of forty-five cases of typhoid occurring in Alpena this spring, made by Dr. Guy L. Kiefer of Detroit, and myself, showed that of these forty-five, twenty-eight were definitely traced to contact, leaving seventeen where the source of contagion might have been due to a contaminated water-supply. These twenty-eight cases developed three, four, five and six cases in homes that were too poor to employ the services of a nurse and where the one caring for the sick was obliged to do the cooking for the other members of the family. In one family, where six cases developed, the woman attending the sick for a time milked the cow, cooked the meals and in other ways infected the members of the household.

Over one year ago our medical society realized the possibility of such cases developing by contact and had urged a strict quarantine and board of health disinfection of the excreta. Various reasons had prevented our putting our theories into effect until in April public sentiment had been aroused so that it was possible to begin an effective campaign of prevention. At that time cases were being reported daily and five deaths occurred in three weeks. You will understand that the hypochlorate method of water purification had been in effect for over two months under state board supervision, and for the most part the water, on analysis, was declared safe.

Two visiting nurses were employed to daily visit the homes, in which strict quarantine was enforced, prepare the disinfectant, give the patient a bath, and instruct the family in preventative measures. The cordial cooperation of the medical profession and an unlimited publicity in the papers, soon showed its effect, and after the first three weeks, during which twenty-one cases were reported, but one new case has been reported, and that clearly a contact case.

Cities with typhoid fever epidemics certainly should not neglect their water-supply, but the attention of the board of health should be centered, far more than is usually the case, on a strict isolation of the patient, a personal disinfection of the excreta, and an avoidance of contact cases, which, our experience shows, occurs in two out of every three cases.

Another method of prevention which we used in families in which typhoid fever was present, was typhoid vaccination. Over 100 persons were rendered immune to typhoid fever in this manner, in only two of whom did any symptoms of typhoid develop. In one of these cases (three cases having already developed in the family) the patient, on the first day following the injection, developed a fever which lasted seven days; the other patient, nine days following the second injection, developed a typhoid condition which lasted nine days. Both of these cases were apparently aborted typhoid, due to vaccination.

Again, let me reiterate: Cities with a typhoid epidemic should not await the improvement of the water-supply, but should vigorously attack the epidemic as they would one of diphtheria or small-pox, and the results will be fully as gratifying.

C. M. Williams.

FEE SCHEDULES. WORKMEN'S COMPENSATION LAW

The schedule of fees that has been observed by the various insurance companies in settling claims of physicians and surgeons for services

rendered to injured employees under the so-called Workmen's Compensation Law, is very just. The law has worked an immense benefit to the medical men of the state for the reason that it requires the payment of three weeks' medical care in every case in which an employee receives an injury. When the services are completed and the statement is rendered, the voucher is promptly forthcoming. In former days the employee was ofttimes inveigled by a lawyer to sue his employer for personal damages, with the result that the employer immediately repudiated any claims for professional services and the doctor was usually compelled to charge the account off as uncollectable. The new law has provided for the physicians and they now promptly receive their monetary returns for the services they render.

In order that this satisfactory arrangement may be continued, it is essential that the physicians should observe the schedule of fees in making their charges for their service. Complaints are already being filed with the Industrial Accident Board in Lansing that the amount of money paid to the physicians in the state exceeds that of the amount paid to the injured employee. So persistent are these complaints and so frequently is the physician's exhorbitant fees called to the attention of the Board that its members are already seriously considering the advisability of adopting a schedule of fees, covering the services of physicians in Michigan.

This schedule arbitrarily forced on us would necessarily be followed unwillingly and would in addition be a sad blow at the dignity of the medical profession. It therefore behooves us to see that the profession as a whole conduct itself with absolute fairness in carrying out its part of the law, and, if necessary, anticipate the action of the Industrial Accident Board by the adoption of its own schedule of fees, either at a special meeting of those physicians most interested in this line of work or at the next regular meeting of the State Society.

The law was intended for the benefit of the employee and not for the physician. While the physician has incidentally reaped a benefit from this enactment, his future course should be such that Michigan be not compelled to submit to the reduction of the fee schedule, as was done in Massachusetts. It was found in Massachusetts that the physician was abusing his privilege and that too much money was being paid out for medical attention in proportion to the amount paid the workmen for compensation, so that the Governor forced the adoption of a new and lower schedule of fees. In Michigan the same thing is becoming apparent and may be obviated if the physician does not "farm" these cases, and will adhere at all times to the schedule that is now in force and not double the amount of his bill just because he thinks this is easy and "quick pay" work done for employers that are rolling in wealth. It will be to the physician's personal interest to give this matter a little thought and be guided by the foregoing suggestions and not charge $50 for a case where otherwise he would charge but $25.

THE FLINT NUMBER

This issue of THE JOURNAL is known as the Flint number and its pages are largely devoted to a writeup of that city and to our annual meeting. We have endeavored to place before the reader a word picture of the civic, business, professional and communal life of Flint. We have tried to explain "Why is Flint" and trust that the descriptive articles and illustrations will not only enlighten the reader, but will also stimulate him to desire to see Flint and its environments and resources in person. Secondly, this issue contains the advance announcement and outlines of the papers that are to be read before the various sections. The social features and the full list of invited guests of national repute will be published in the September issue, which will be mailed August 25.

Peruse this issue from cover to cover—don't overlook the advertisements—and after doing so we feel certain that you will feel impelled to arrange your work so as to attend this annual meeting. You cannot afford to miss it. The profession of Flint is waiting to welcome and entertain you.

COUNTY SECRETARIES' MEETING

We desire to call the attention of every county secretary to the Fifth Annual Meeting of the County Secretaries' Association of Michigan. This meeting will be held in the parlors of the Hotel Dresden in Flint on Wednesday afternoon, September 3, at 3 o'clock. Elsewhere in this issue you will find the program of addresses and speakers. On the conclusion of the program the meeting will adjourn to the banquet room, where the Council will tender a dinner to the secretaries in attendance.

We urge that every county secretary attend this meeting and trust that the officers and members of the various component societies will insist that their secretary shall be present. Come

and talk over your difficulties. Meet and become acquainted with the other secretaries and ascertain how they are conducting the work of their office in their county. By so doing you will secure new ideas and a new impetus that will enable you to attain greater ends and accomplish greater things, and thus build up your own society so that it will be of more value to your members and a potent power in the professional life of your community.

Your councilor and your society expects that you will attend this meeting, and we trust that the entire Council will have the pleasure of meeting you, and that this conference will result in the instituting of a movement that will advance the every interest of our state organization.

SHALL I ATTEND THE ANNUAL MEETING AT FLINT?

We sincerely hope that everyone of our readers are asking themselves this question. We are going to endeavor to cite but a few reasons that are pertinent why every member should answer the above question in the affirmative.

The demands that are made on the time of the average physician are so great that he has but little time in which he may devote himself to keeping abreast of the progress that is being daily made in the profession. New ideas and new methods are constantly being advanced. To become conversant with them so as to apply their teachings requires study, thought, experience and application. Every physician has not the opportunity of conducting such an investigation and he is loath, without such research and experience. to adopt these new methods. At the scientific meetings of the various sections these methods are the basis of many of the papers that are read by men who have the proper facilities and the assistants to critically investigate and report on their experience with these newer methods. The discussion that attends the reading of these papers clears up the difficulties and points of contention and technic of application so that the listener is enabled to obtain a clear idea and a practical working basis for their application in his practice. Becoming thus the possessor of a working knowledge of these new and tried modern methods he will go home better equipped to cope with the problems of his practice. The educational features of the meeting are, then, the first reason why you should attend the Flint meeting.

The lonely worker in any calling is prone to become narrow and fall into a rut of habit. The mingling with fellow practitioners from other localities, the listennig to papers and discussions by men who are devoting their lives in the endeavor to solve many of the unexplained problems of our work acts as an inspiration that will tend to keep us out of the rut and will stimulate us to do better and more scientific work and adopt new and tried advanced measures, to the one great end that we become better doctors. One cannot attend an annual meeting without such a commendable impetus. You can cause this yoke of habit to fall from your shoulders and remain abreast of the times if you but devote a few days during each year to attending the meeting of the State Medical Society, and better still, in addition a few of the national meetings. You will return home better fortified to do greater scientific work.

By attending the state meeting you will meet many of your old classmates and friends and around the social board and at the entertainments you will have the opportunity of living over and recalling the days of yore when you were at college. These renewed recollections of college days and the recitation of long past episodes will cause the mantle of fatigue to be lifted from your shoulders; the friendly handclasp and the "Hello Bill" will stimulate your vasomotors to such an extent that the drooping shoulder will become erect, the wrinkles of care will vanish and a feeling of contentment and peace will permeate your whole physique. You will feel revivified and still retain your professional dignity. In addition, you will make new acquaintances whose friendship you will prize.

To summarize: You will gain much useful knowledge that will be a valuable asset in your work; you will secure a renewed impetus that will cause you to do better work; you will renew old acquaintances and form new ones; you will return home a better doctor and man than you were when you left home.

Let your answer be: Yes, I will attend the annual meeting at Flint, and plan your work accordingly. We will look for you at Flint on September 4 and 5.

Editorial Comments

Are you planning to attend the Annual Meeting at Flint? If not, why not? There are many good things awaiting those who attend.

Dr. Williams' article in this number on typhoid contact is to the point and very timely.

He presents a subject that is worthy of consideration by every doctor and health officer.

IF the clinical case reports published in the July number proved interesting and met your approval, will you not favor us with similar reports from your practice? We shall always be pleased to receive such reports and supply half tones for illustrations.

COUNTY secretaries who have failed to send in the names of the duly authorized delegates from their society are urged to do so at once in order that proper credentials may be mailed to all the elected delegates and that they may be properly seated in the House of Delegates at its first session.

OUR advertisers merit your patronage. Have you perused our advertising pages and consigned some of your business during the past month to these advertisers? If not you are not exhibiting to your society and its publication the loyalty and support that it rightfully demands. May we not urge that you bear this in mind in the future? It will be to your personal advantage.

THE American Medical Association went on record at its Minneapolis meeting as strongly opposed to the secret division of fees or the so-called "Surgeon's commission evil." An amendment was adopted providing that any person guilty of this practice be considered ineligible for membership and should he be a member he is to be peremptorily expelled. Slowly but surely is this blot being removed from the midst of our organized profession.

ONE of the daily papers in the state has been secretly investigating the methods of a certain chiropractic college of the state and promises to publish, in the very near future, some interesting disclosures. THE JOURNAL has asked for this evidence, but naturally the editor does not wish to grant us the privilege of printing the *exposé* until it has appeared in the columns of his daily. We hope to secure the material for an early number and promise some interesting reading.

THE newly enacted amendments to the Medical Practice Act should not be permitted to merely occupy a certain number of pages on the statute books. The amendments, if enforced, will create a much-needed reform. It is up to the individual member to place whatever evidence may come into his possession in the hands of the proper committee of his Society. By so doing, we will eventually raise the standard of the profession of the state to the highest efficiency.

WE suggest that if you have not already done so, that you at once engage your hotel or room accommodations for the Flint meeting. By so doing you will avoid personal inconveniences and will also enable the local entertainment committee to arrange for the care and comfort of all. Do not go without having made a reservation and thus be compelled on your arrival to spend a half a day in endeavoring to secure accommodations. Sit down and write to the chairman of the committee on arrangements stating the nature of the reservations that you wish to make and he will be only too glad to comply with your wishes. A list of the hotels is published in this issue.

WE hope soon to commence publishing a series of original articles by the leading clinicians and surgeons of this country. We have written to these leaders of the profession in America and they have, in the majority of instances, consented to send us an article on some practical subject of their specialty. This series, we trust, will enlighten the members profitably as to the viewpoints and opinions of these various masters and teachers. To enable the reader to perceive the character of these articles we will mention but a few of their names: Bainbridge, Crile, Matas, Dock, Mayo, Barrett, Cullen, Porter, McCaskey, Cushing, Janeway, Knott, Binnie, Billings, Babcock, Murphy, Bevan, Barker, McCarthy, Smithies and several others. The first paper of the series will be published either in the September or October issue.

WE are very anxious to have THE JOURNAL contain original articles of high scientific value and also of practical value. Articles that will be of interest to every member, be he specialist, surgeon, physician, reseach worker or a lonely practitioner at some four corners. To the end that THE JOURNAL may contain such articles we are soliciting papers from among our members and particularly urge the men in the smaller communities to send us original articles bearing on the problems of their every-day work and practice. We admit that we have been publishing a large number of surgical papers. The fact

that they have predominated is not due to our surgical tendencies. They have been published because they were the only papers that have been submitted to the editorial desk. Original articles on medical subjects are desired and solicited. We trust that our internal medicine members will favor us with their writings.

If every member would devote but one hour a month in doing something for his Society's advancement and interest, it would be but a comparatively short time before Michigan would be the leader in medical organization work. Think of it! Twenty-three hundred hours of effort devoted by our members each month! Practically one hundred days full of work! What might not be accomplished? A thoroughly organized profession composed of every reputable and eligible physician in the state: live, active county societies holding interesting and instructive meetings for each member's intellectual and social profit; a universal feeling of good fellowship and friendliness; potent factors in moulding public opinion in all matters of public health and civic problems. These are but a few of the possibilities and ends thus attainable. This is not a "pipe-dream," but a conservative statement of what concerted action would accomplish.

Are you dissatisfied with your local organization and the benefit you are deriving from it? If so, stop and ask yourself what you are personally doing for it. What are you giving it?

Are you dissatisfied with the programs? What are you doing to make them better? How many papers have you read? How many cases have you reported? In how many discussions have you participated? Are you dissatisfied with the attendance? What are you doing toward increasing it? Are you urging the non-member to unite and reminding "Dr. Often-Absent" that he should attend?

Pertinent questions—yes, but vital ones that you have the power of solving. The gist of the whole matter may be summed up: Do not leave all the work to your officers. Do not forget your society when the meeting adjourns and not recall its existence until you receive the next notice of a meeting.

You are going to get out of your Society just what you put into it. This is a day of organized effort. The opportunity presents. Are you ready to grasp it?

State News Notes

The hospitals of Grand Rapids secured $3,846 on Hospital Tag Day last month.

Dr. J. W. Evers of Flint is spending three months doing post-graduate work in Ann Arbor.

Dr. Ward Thomas Seeley was married in Ann Arbor on June 11 to Miss Marion Madeline Dickinson.

Dr. George Washington Krahn was married to Miss Clara Rohn at the latter's home in Ypsilanti on June 3.

Tag Day for the benefit of the Detroit Maternity Hospital provided that institution with a sum of $4,020.

Dr. N. A. Repp of Detroit was operated on for appendicitis in St. Mary's Hospital on June 19. He experienced a rapid convalescence.

Dr. Floyd Gillis of Mitchell, S. D., was married to Miss Helen Crane of Detroit on June 12. Dr. Gillis graduated from the U. of M. with the class of 1910.

Dr. Guy L. Kiefer, who retired as Health Officer of Detroit on July 1, was tendered a banquet on that day by eighty employees of the Board of Health of that city.

Dr. William Northrup of Grand Rapids sailed for London and Edinburgh on July 18. The doctor will devote the next six months to post-graduate work in the clinics of these two cities.

There are certain advertisements in this issue which each reader should not miss reading and patronizing. The future of The Journal is in a large measure dependent on the patronage conferred on its advertisers.

Dr. William H. Pieree, Detroit, has been appointed acting fleet surgeon at the Interlake Sailing and Power Boat Regatta at Put-in-Bay, to serve in place of the regular surgeon, Dr. C. G. Jennings, who found it impossible to devote the time to the duties of that office.

Dr. George R. Pray of Jackson has tendered his resignation as prison physician to the board of control. Dr. Pray has served the prison in this official capacity for the past ten years. His resignation was to take effect July 1 and in the future the doctor will devote himself to private practice in Jackson.

The charge that the prists and sisters of St. Mary's Hospital, Detroit, were "proselyting" was not substantiated at an investigation held by the Board of Poor Commissioners. The charge was preferred by several Protestant ministers and the board ruled that the accusing evidence was untrustworthy.

The following Flint physicians are spending three months in Europe doing post-graduate work:

T. S. Conover, eye, ear, nose and throat.
J. W. Orr, eye, ear, nose and throat.
H. A. Stewart, genito-urinary diseases.
David Jickling, children's diseases.
J. C. McGregor, heart and lungs.

Dr. William H. Price, head of Detroit's milk inspection since 1900, has been appointed Health Officer of Detroit to succeed Dr. Guy L. Kiefer, who resigned last month.

Drs. J. H. Dempster, J. E. Davis and B. R. Hoyt of Detroit are pursuing the summer courses offered by the medical department of the University of Michigan.

Two of the quarter page advertisements in this issue's advertising section were secured by Dr. C. P. Clark of Flint. They should be read and patronized by our members. The Flint business industries are ably assisting the Flint members of the Society in their work of perfecting arrangements and they are thus worthy of our members' consideration during their visit to Flint on September 3 and 4.

The *Illinois Medical Journal* appears in new form on its commencement of a new volume. It is of the same form and style as our JOURNAL and was adopted in conformity with the movement to secure a uniform style in all medical journals. Dr. Henry G. Ohls of Chicago is the managing editor. Dr. W. H. Gilmore of Mt. Vernon succeeds Dr. E. W. Weis as secretary of the Illinois State Medical Society.

Alpena, Tuscola County, Washtenaw County, Rose City, Oakland County, Osceola County and Arenac County have all tendered what are considered suitable sites for the proposed epileptic farm colony. The commission appointed by Governor Ferris to select a suitable site have expressed their determination not to consider any site in which there would be involved a land investment of over $75,000. At least 1,000 acres in a single tract is desired. The recent Legislature appropriated $200,000 for the purchase of a site and the erection of suitable buildings.

During the seven months during which the Speakers' Bureau of the American Medical Association was in operation (Nov. 1, 1912, to June 1, 1913) the following addresses have been given in Michigan by the various speakers sent out by this bureau:

Ann Arbor, Nov. 26, 1912.....Dr J. N. Hurty
Ann Arbor, Dec. 16, 1912.....Dr F. F. Wesbrook
Ann Arbor, Jan. 20, 1913.....Dr. John B. Murphy
Ann Arbor, April 9, 1913.....Dr. Ludwig Hektoen
Grayling, Jan. 15, 1913.....Dr. Guy L. Kiefer
Cadillac, Dec. 3, 1912.....Dr. J. W. Pettit
Cadillac, Dec. 17, 1912.....Dr. A. J. Cramp
Albion, March 18, 1913.....Dr. Miles F. Porter
Manistique, March 14, 1913.....Dr. Guy L. Kiefer
Ann Arbor, Feb. 19, 1913.....Dr. Abraham Jacobi
Kalamazoo, Jan. 28, 1913.....Dr. Evans
Mendon, Feb. 3, 1913.....Dr. M. F. Porter
Benton Harbor, Feb. 11, 1913.....Dr. W. S. Hall
Coloma, Feb. 24, 1913.....Dr. A. F. Fischer
Cadillac, April 7, 1913.....Dr. Guy L. Kiefer

Representatives of Harper Hospital Board of Trustees and staff departed for Toronto July 8 in a special car to inspect the new Toronto General Hospital. Five hundred thousand dollars is being spent in additions and improvements at Harper Hospital, and the heads of the institution hope to gain many new ideas in Toronto. The doctors of this party were: Drs. C. G. Jennings, H. W. Longyear, Max Ballin, Don M. Campbell, P. M. Hickey, E. W. Haass, B. R. Schenck, L. J. Hirschman, P. F. Morse, W. R. Chittick and Stewart Hamilton.

Deaths

Sellards, George B., M.D. Detroit College of Medicine, 1907. Member Lenawee County Medical Society, Michigan State Medical Society and American Medical Association. Died June 13, 1913, of heart trouble at his home in Deerfield, Mich., at the age of 38.

Martin, James, M.D. For many years head of the section on Diseases of Women and Children, Medical Department, University of Michigan, holding the first Bates' professorship of the Diseases of Women and Children. Died June 10, 1913, at San Diego, Cal.

Fletcher, John, M.D. Michigan College of Medicine and Surgery, Detroit. 1897. Member of Kalamazoo Academy of Medicine, Michigan State Medical Society, and American Medical Association. Died at his home, 529 South Park street, Kalamazoo, Mich., June 23, 1913, aged 61, following an illness of several months' duration.

Society Proceedings

DETROIT OTOLARYNGOLOGICAL SOCIETY

May 20, 1913

The society passed resolutions on the death of its member and its first president, Dr. E. L. Shurly, whose work and personality are well known. Dr. Shurly had shown a great interest in the society, for the scientific as well as the social side of the same.

Dr Stanley G. Miner spoke on septal deflections and emphasized the point that one style of operation will not do for all kinds of cases. He supported his idea by his experience in over four hundred cases. A general discussion followed.

Dr. J. Vernon White was elected president for the coming year; Dr. Emil Amberg was reelected secretary.

EMIL AMBERG, Secretary.

KALAMAZOO ACADEMY OF MEDICINE

The regular meeting of the Kalamazoo Academy of Medicine was held in the academy rooms in the public library, June 24, 1913, at 1:30 p. m.

Reports of the section meetings of the American Medical Association were given by members who had attended the Minneapolis session, among whom were Drs. Boys, Crane, Shillito, Adams and Jackson of Kalamazoo, and Crosby of Plainwell.

A paper on "Bone Pathology, with Biologic References," and illustrated by x-ray plates, was given by Dr. Henry J. Vandenberg of Grand Rapids, Dr. A. S. Youngs leading the discussion which followed.

"Protozoa in Pathology, with Demonstrations of Living and Stained Viruses," was the title of a paper presented by Dr. W. A. Perkins of Kalamazoo.

C. B. Fulkerson, M.D., Secretary.

THE A. M. A. COMMITTEE FOR PUBLIC HEALTH EDUCATION AMONG WOMEN, COOPERATING WITH THE KALAMAZOO ACADEMY OF MEDICINE COMMITTEE

The American Medical Association Committee for Public Health Education Among Women, cooperating with the Kalamazoo Academy of Medicine Committee have held a series of meetings in Kalamazoo. Dr. Alice Barker Ellsworth gave a talk at four gatherings —Western State Normal, Kalamazoo College, Parson's Business College and the Y. W. C. A.—on the "Anatomy and Physiology of the Pelvis"; three talks—Kalamazoo College, Y. W. C. A. and Parson's Business College—on the "Physiology of Menstruation"; four addresses—Parson's Business College, Baptist Women's Union, Equal Suffrage League and Kalamazoo College —on "Social Hygiene"; spoke to the Kalamazoo College on the subject of "Motherhood"; two meetings—Portage Ladies' Club and Lake View Club—on the topic, "The Air We Breathe."

Dr. Della P. Pierce presented the subject of "The Great White Plague," at a meeting of the Galesburg M. I. Club; she also addressed the Ladies' Aid at the Portage Street Church and the Church of Christ on "Sex Education," and spoke on the topic, "Some Essentials of Education," at the Kalamazoo College.

Dr. F. Elizabeth Barrett spoke on the "Infant Welfare Movement" at the Mother's Club, and Dr. Rose Patterson Warren addressed the Babtist Women's Club and the East Side W. C. T. U. on "First Aid."

Dr. C. E. Boys gave a series of talks at the Y. M. C. A. and the Kalamazoo College on "First Aid" and "Tumors." Dr. Boys also gave an illustrated stereopticon address at the Galesburg M. E. Church on "Tuberculosis."

Prof. W. E. Praeger of Kalamazoo College gave a talk on "Eugenics" at the Galesburg M. E. Church.

Dr. Clara M. Davis of Lansing spoke at the Ladies' Library Association on "A Health Program for Immediate Use," and gave a "Health Talk" at the Y. W. C. A.

Dr. W. A. Evans of Chicago addressed a public meeting at the First Baptist Church to an audience that was estimated at three hundred and fifty, on the subject of "What Kalamazoo Can Do."

A public meeting in the First M. E. Church was addressed by Dean Vaughan of the University of Michigan, on "Eugenics or Race Betterment." The attendance was 800, with some turned away for lack of room. This was by far the best gathering under the auspices of the joint committee and indicated the increased work in the work of the committee.

There were also eight meetings held in the rooms of the Kalamazoo Academy of Medicine that were open to the public, making a total of forty-three meetings with an attendance of over 4,300.

Della Pierce, Chairman.

GENESSEE COUNTY

The regular June meeting of the Genessee County Medical Society was held in the Masonic Temple at Flint, June 10, at 8 p. m. Dr. Victor C. Vaughan, Jr., of Detroit, gave an interesting talk on "The Early Diagnosis of Pulmonary Tuberculosis." The doctor placed more confidence in the ophthalmic reaction for diagnostic purposes than the other tuberculin tests, placing stress on the sensitization test, which is made from one week to ten days following the first test. A mild positive result at this time means that the patient has been tuberculous, but is not at present actively tuberculous.

Dr. Vaughan was given a vote of thanks and elected to honorary membership in the Genessee County Medical Society.

On suggestion of Dr. Don Knapp, Health Officer, a motion was made and adopted:

"That the Genessee County Medical Society request the Common Council of Flint to grant the Health Department a nurse to act under the instruction of the Board of Health in instructing tuberculous patients and mothers in the care of sick children."

The Council approved of this request.

C. P. Clark, M.D., Secretary.

HILLSDALE COUNTY

The members of the Hillsdale County Medical Society held their regular monthly meeting at Bird Lake, south of Pittsford, June 20, 1913, this being the first of the monthly meetings inaugurated by the society to be held outside of the city.

Papers were presented by Dr. Bion Whelan of Hillsdale and Dr. D. W. Fenton of Reading.

Following the program the afternoon was spent in fishing. C. T. Bower, M.D., Secretary.

HOUGHTON COUNTY

The regular monthly meeting of the Houghton County Medical Society was held at the Scott Hotel, Hancock, Monday evening, June 2, 1913. Papers were read by Dr. W. E. McNamara of Trimountain and Dr. R. E. Wiley of Osceola.

This meeting was also a farewell session, a banquet being given in honor of Dr. McNamara, who will leave soon to locate at Lansing. For the past five years Dr. McNamara has been mine physician at Trimountain and house physician at the Copper Range Hospital. Alfred La Bine, M.D., Secretary.

IONIA-MONTCALM COUNTIES

A day of recreation and enjoyment to all was July 17, 1913, when the doctors, druggists and dentists of Ionia and Montcalm Counties held their annual picnic at Baldwin Lake, Greenville. There were no speeches or toasts to call forth any mental effort, sociability and games having the right of way in making this a red-letter day for these professional and business men of the two counties. While the men of Ionia County played a ball game with the Montcalm men for opponents, the women of the two counties were likewise

arrayed against each other in a similar game. At 12:30 well-filled lunch baskets were opened and a bountiful lunch enjoyed. Bathing, boating and other athletics were participated in, and all in all it was an occasion of relaxation and sociability to all in attendance.

JOHN J MCCANN, M.D., Secretary, Ionia.
H. L. BOWER, M.D., Secretary, Montcalm.

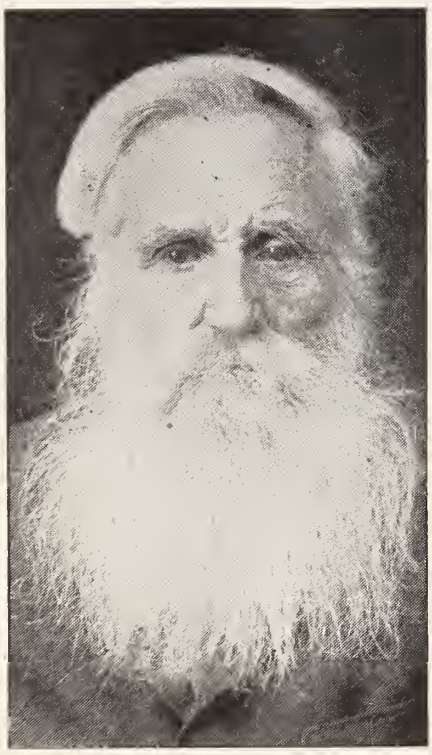
LAPEER COUNTY

The members of the Lapeer County Medical Society devoted its July meeting to a picnic given in honor of Dr. J. S. Caulkins, the pioneer practitioner of Lapeer county. Forty-two members and their wives gathered at Lake Pleasant on July 8. After partaking of a bountiful dinner the following program was carried out:

Presentation Address, Dr. G. W. Jones.

Toast: "Dr. Caulkins, Student and Scholar," Dr. H. E. Randall.

Toast: "Some Salient Characteristics of Dr. Caulkins," Dr. Wm. Blake.



Dr. J. S. Caulkins

Toast: "Dr. Caulkins, Family Physician and Friend," Dr. W. J. Kay.

Toast: "Live Men Must Go On Working; It Is Only the Dead Who Rest," Rev. S. G. Livingstone.

Informal Talk: Dr. F. C. Warnshuis, Secretary Michigan State Medical Society.

Dr. John Sistair Caulkins was born in 1822 and his early boyhood was spent in Genesco, Livingston county, New York. In 1845 he moved to Michigan, where he studied medicine with Dr. Strowbridge of Almont and received his state license.

Dr. Caulkins began his practice at Thornville in 1846 and continued in practice there until 1898, marrying in 1849. During all these years the doctor has made numberless friends who feel it a privilege to be allowed to pay him a tribute.

DANIEL J. O'BRIEN, Secretary.

MUSKEGON-OCEANA COUNTY

The last several meetings of the Muskegon-Oceana County Medical Society have been held in various towns in the two counties. This gives the country members a better chance to attend the meetings and as the trips are usually made by automobile, this gives an added attraction. We expect to carry out this plan during the summer months.

The meeting of May 9 was held at the White Lake Inn at Montague, as was also the meeting of the 17th. On June 27 the meeting was held at the Shelby hotel, Shelby.

J. T. CRAMER, Secretary.

UPPER PENINSULA MEDICAL SOCIETY

Program of Annual Meeting

The nineteenth annual meeting of the Upper Peninsula Medical Society will be held in the city of Ishpeming under the auspices of the Marquette-Alger County Medical Society, August 6 and 7, 1913.

This organization is unique in the history of medical societies. We have no constitution; we have no by-laws; we exact no dues for membership. The president is chosen from the county society which last entertained the Upper Peninsula Society. Any member of a county society in the Upper Peninsula is a member of the Upper Peninsula Society. Only members of the Upper Peninsula Society can present papers at these meetings.

The following program is tentatively outlined:

WEDNESDAY MORNING, AUGUST 6, 10:30 A. M.

Introduction—Dr. F. M. Harkin, Marquette.

Invocation—Rev. Ziegler, Ishpeming.

Address of Welcome—George Barrett, Mayor, Ishpeming.

President's Address—Edward Sawbridge, Stephenson.

WEDNESDAY AFTERNOON, 1:30 P. M.

America's Contribution to Gynecology—E. T. Abrams, Dollar Bay.

Care and Management of Acute Lobar Pneumonia—R. Bennie, Sault Ste. Marie.

Extrauterine Pregnancy, Diagnosis and Treatment—E. H. Flynn, Marquette.

Public Health—C. J. Larson, Negaunee.

Pleurisy as Considered by the General Practitioner—W. S. Picotte, Ishpeming.

Tri-Facial Neuralgia—H. M. Cunningham, Marquette.

WEDNESDAY EVENING, 8 P. M.

Banquet tendered to the visitors by the Marquette-Alger Society.

THURSDAY MORNING, AUGUST 7, 9:30 A. M.

Business meeting and election of officers.

Ileus—A. I. Laubaugh, Calumet.

Syphilis, with Demonstration by Stereopticon Slides.—Arthur T. Fischer, Hancock.

Modern Treatment of Syphilis—P. D. McNaughton, Calumet.

The Diagnosis of Eye, Ear, Nose and Throat Diseases of Interest to the General Practitioner—C. R. Ellwood, Negaunee.

Relation of Gall-Stones to Pregnancy, with Report of Case—R. A. Burke, Diorite.

Paper—Title to be given—G. M. Belheumer, Negaunee.

THURSDAY AFTERNOON

By special invitation the members of the society will be entertained at the Morgan Heights Tuberculosis Sanitarium and the Upper Peninsula Branch Prison; automobile drives to parts of interest and around Presque Isle.

H. J. HORNBOGEN, M.D., Secretary.

Public Health

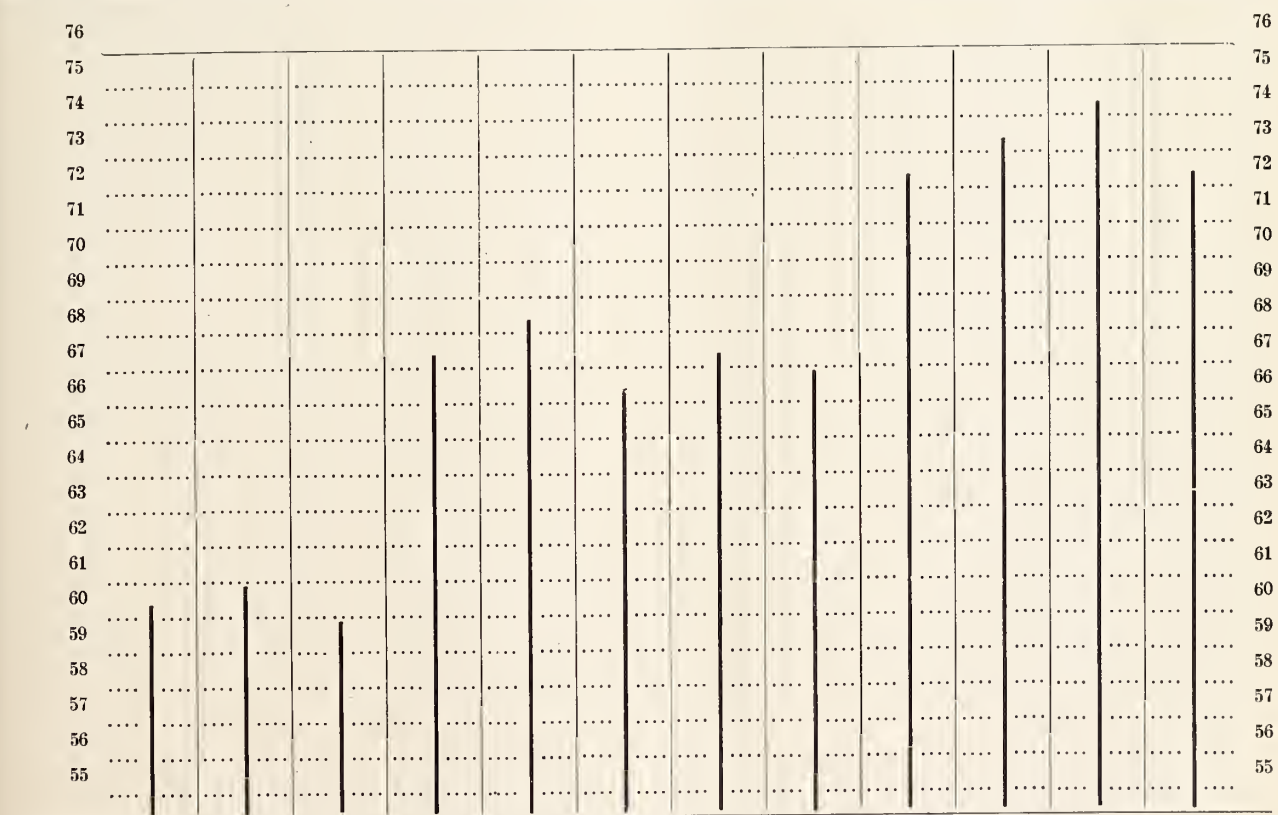
THE INCIDENCE OF CANCER AS INDICATED BY MICHIGAN VITAL STATISTICS

An article on the subject of cancer, under a caption "Public Health," may occur to some readers as a little beside the question. The same might have been said regarding tuberculosis only a relatively few years ago. It is not my contention that cancer is a disease subject to regulations by boards of health, nor do I prophesy that the disease will ever come to be considered by health authorities as preventable by sanitary principles or by the application of methods commonly used in the prevention of the communicable, infectious diseases, since there is no dependable evidence that cancer is infectious or communicable as we now use those terms.

Cancer has come to be such a great factor among the causes of death that it deserves some consideration from a statistical standpoint at least. Just as "popular knowledge about the communicable diseases" constitutes the most potent factor in their prevention, so, I believe, there must be a greater popular knowledge regarding the malignant growths before great success by presently known methods of prevention of development can be attained. If, as we generally believe, very early surgical operation would prevent many deaths from cancer, then the public must be educated to the points of early consultation with a competent physician and of early surgical action.

The fact that in every instance it has been the case that a knowledge of the greatness of the

TABLE I.—DIAGRAM SHOWING THE DEATH RATES PER 100,000 POPULATION FROM CANCER, IN MICHIGAN, DURING THE YEARS 1900-1911, INCLUSIVE.



Years....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Rates....	60.3	60.5	59.9	67.7	68.3	66.2	67.2	66.9	72.8	73.1	74.9	72.4

TABLE II.—TABLE SHOWING THE PER CENT OF DEATHS TO TOTAL DEATHS DUE TO CANCER OF EACH SEX OVER 20 YEARS OF AGE, IN THE VARIOUS ORGANS OF THE BODY, AS INDICATED BY THE TOTAL FOR THE TWO FIVE-YEAR PERIODS, 1901-1905 AND 1906-1910.

Location of Disease	1901-1905				1906-1910			
	Males		Females		Males		Females	
	Number of Deaths	Per cent of Total	Number of Deaths	Per cent of Total	Number of Deaths	Per cent of Total	Number of Deaths	Per cent of Total
Mouth	197	5.9	52	1.1	263	6.8	63	1.2
Stomach and liver	1,742	52.3	1,603	34.6	2,004	52.0	1,863	34.0
Intestines	337	10.1	425	9.2	459	11.9	560	10.1
Genital organs	13	0.4	1,098	23.7	9	0.2	1,320	24.1
Breast	17	0.5	680	12 5	4	0.1	790	14.4
Skin	282	8.5	109	2.4	312	8.1	140	2.6
Other organs	741	22.3	664	14.3	803	20.8	746	13.6
Total	3,329	100.0	4,631	100.0	3,854	100.0	5,482	100.0

TABLE III.—RATIO OF TOTAL DEATHS (EXCLUSIVE OF CANCER) TO DEATHS FROM CANCER, AS INDICATED BY THE AVERAGE DEATHS DURING THE TWO FIVE-YEAR PERIODS, 1901-1905 AND 1906-1910.

Age periods	Total deaths to one from cancer					
	Average, 1901-1905			Average, 1906-1910		
	All persons	Males	Females	All persons	Males	Females
20-24	148	111	209	125	151	106
25-29	75	100	61	75	74	76
30-34	32	54	24	36	58	26
35-39	19	32	13	16	28	11
40-44	10	19	7	11	27	7
45-49	8	14	5	8	14	5
50-54	7	11	4	7	12	4
55-59	7	9	5	6	10	4
60-64	7	10	6	7	8	6
65-69	9	11	8	9	10	7
70-74	12	13	11	11	13	10
75-79	18	20	16	16	18	13
80 and over	29	29	28	29	31	27

TABLE IV.—TABLE SHOWING THE DEATH RATES FROM CANCER PER 100,000 OF THOSE LIVING AT EACH AGE BY SEX, IN MICHIGAN, FOR EACH OF THE YEARS, 1901-1910

YEARS	AGE GROUPS AND DEATH RATES																							
	20-24 years		25-29 years		30-34 years		35-39 years		40-44 years		45-49 years		50-54 years		55-59 years		60-64 years		65-69 years		70-74 years		75-79 years		80 and over	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1901	7.1	4.5	6.8	9.2	9.7	30.0	21.6	63.2	44.4	106.7	62.5	135.9	99 6	202.2	164.6	249.8	229.7	320.7	344.5	448.5	414.0	560.6	466.3	541.6	727.7	379.7
1902	1.8	3.5	7.8	8.0	6.5	30.8	14 8	41.4	42.7	124.0	58.1	173.9	94.5	178.9	191.8	258.2	222.4	347.6	404.7	413.8	390.2	419.0	387.3	449.1	610.6	734.8
1903	2.6	2.6	5.8	15.7	10.7	22.6	26.0	62.0	45.1	100.0	76.8	164.8	120.0	248.8	161.9	376.9	242.2	401.5	332 8	457.9	552.8	428.3	512.3	582.3	652.2	626.2
1904	10.5	0.9	3.8	11.6	17.2	30.2	15.8	42.9	30.0	97.5	73.8	190.0	111.4	221.2	185.3	273.2	276.1	362.6	407.6	484.9	541.5	553.3	601 4	588.9	610.8	688.3
1905	3.5	2 5	4.8	6.7	8.6	23.2	21 3	53.4	34.9	89.5	47.8	158.9	103.1	238.3	181.2	313.8	224.3	333.9	326.5	503.4	512.1	622.4	563.1	740.8	616.5	772.6
Average, 1901-1905	5.1	2.8	5.8	10.2	10.5	27.3	19.9	52.6	39.4	103.4	63.7	165.0	105.8	218.3	177.2	294.4	239.2	353.5	363.1	462.3	484.4	518.3	506.7	582.2	642.3	643.3
1906	6.0	5.0	8.6	7.5	10.7	26.3	14.5	66.0	27 3	99.4	61.5	167.7	119 2	217.4	172.9	287.7	278.5	359.9	378 3	483.8	488.9	583 3	385.8	738.4	556.5	633.8
1907	1.7	9.1	9.4	5.6	7.5	26.0	16.7	57.0	24.8	110.4	59.1	144.4	106.2	250.6	197.5	357.9	287.9	311.9	375.6	501.6	382.4	450.3	460.0	745.2	552.7	715.6
1908	5 1	4.9	6.6	6.4	11.7	32.2	31.0	58.8	37.1	109.2	70.8	166.4	98.4	259.2	181.2	331.9	253.4	431.1	385.8	522.6	420.0	555.8	834.2	688.4	642.3	653.8
1909	3.4	4.8	4.7	9.9	14.9	22.3	28.6	67.4	24.6	84.3	60.6	152.8	116.9	242.5	179.3	322.4	311.9	376.3	473.7	539.3	468 5	574.3	632.2	865.4	535.3	697.5
1910	2.9	2.3	9 5	7.9	9.1	12.9	26 0	53.8	31.4	95.5	79.7	185.3	90.9	228.6	188.5	355.5	326 3	368.6	442.9	404.8	540 0	674.2	757 6	700.8	691.3	697.0
Average, 1906-1910	3.8	5.0	7.8	7.5	10.7	23.8	23.4	60.5	29.1	99.6	66.5	163.5	105.3	239.5	184.0	331.6	291.9	370.0	409.0	488.2	460.0	567.7	603.1	746.5	596.0	680.2

NOTE.—M, males; F, females.

proposition must precede any concerted action, is, therefore, my apology for presenting this article. The word "cancer" is used in its broad sense as including all classes of neoplasms. The data expressed in the tables are based on the death certificates on file in the Secretary of State Department at Lansing. The tables are intended to be self-explanatory, and are, therefore, presented without further comment.

County Secretaries' Department

The September Journal will be mailed August 25, and will contain the entire program for the Annual Meeting.

Whenever an interesting paper is read at your meetings, The Journal will appreciate your securing the manuscript for publication in a future issue. We need all the papers we can get.

Dr. Alex. R. Craig, Secretary of the American Medical Association, has accepted the invitation to be present and address the meeting of the county secretaries at Flint. This is another reason why you should make it a point to attend this meeting. You will be sure to profit by doing so.

Try and enlist the efforts of your more intimate friends and make them your ambassadors charged with the duty of securing the application of the unaffiliated doctor. There are 1,000 phycians in the state who should become members of their county and state society. We want those who reside in your vicinity. Will you bring them in? The state society cannot exert its greatest influence until it is composed of 75 per cent. of the eligible doctors of the state. With your assistance we can attain this end.

This office is eager to receive your reports, criticisms and suggestions. May we not be favored by receiving your personal opinion on the organization work of the state and the conditions in your vicinity? Mutual endeavors will enable us to so perfect our organization that it will be of greater usefulness and potential power than ever. By getting our "heads together" we may be able to settle on a plan of concentrated effort that will be attendant with the attainment of our object; a better, larger, more profitable and influential state organization. We but await your enlistment.

This number is devoted, in a great measure, toward imparting what the members may expect to see and hear during the Annual Meeting at Flint, September 4 and 5. A goodly attendance is desired for this meeting, and we trust that each secretary will see that his county is fully represented by a large attendance. May we not ask you to drop a postal card to all your members during the last week in August, calling attention to the Annual Meeting, the desirability of having their society well represented and urging that they take a "couple of days off" and spend them in Flint. This cooperation is strongly urged. Do not forget to come yourself.

August and its humid days, the sick babies, the adult with a cholera morbus or dysentery, are not as a rule conducive toward putting one in a frame of mind calculated to stimulate you toward arousing enthusiasm among the doctors of your county in society work. Troubles of your own are believed sufficient excuse to lay back on your oars and rest awhile. Many of the societies have taken a recess during the summer months and organization work may be considered at a standstill. However this may be in your county, there are certain lines along which you may proceed, and by directing your endeavors at a "low speed" rate, you can, without very much effort, obtain a sufficient momentum during the next two months, so that when your meetings are again resumed you can "throw into high speed" and get off with a good start.

The cool of the evening may be utilized to take your family for a spin in your car to a neighboring town, where you may—if you make it a point—meet the local doctor who is a non-member. Be sure you have a blank membership application with you—every secretary should have a few of these on his person at all times—and after talking shop, touching on the topics of the day, deftly lead him up to society work and tell him what he is missing and what good he may derive by affiliating; then flash your application blank and get him to "sign up." This is one way in which you may remain active, and by pursuing this course this summer you will be enabled to present a goodly number of applications at your first fall meeting.

Then, again, when you meet the doctors who are members and in your "shop talks" they tell you of some of their cases that are of unusual interest, induce them to work them up into a paper and put them down on the programs for your meetings. Then, again, you will be ready for

your fall and winter meetings and you will not have to worry about whom to ask to read a paper for the next meeting.

These two suggestions may readily be complied with, and the exertion should not call forth any exhausting effort. Try it!

Book Notices

THE PRACTICAL MEDICINE SERIES, 1913. General Surgery, Volume II. Edited by John B. Murphy, M.D., Chicago. Six hundred pages. Cloth. Price $2. The Year Book Publishers, 40 Dearborn Street, Chicago.

What has been said of the series in the review of Volume I is confirmed by this volume No. II. It is so complete that the reviewer would be required to devote this entire department in commenting on its contents and then he would be unable to do it justice. If the reader desires to be in possession of the recent and most accepted principles of general surgery, in a condensed, concise form, he should not fail to subscribe to this practical series.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume II, No. 3 (June, 1913). Octavo of 185 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-monthly. Price per year: Paper, $8; cloth, $12.

Those who have not subscribed to this series cannot realize what they are foregoing in not having this work come to their desks. This number not only maintains the standard of former numbers, but also is of added value because of the imparting of valuable clinical observations that have been proven in Dr. Murphy's clinics. The favorable reception accorded to this work is an assurance that it supplies a need heretofore unfilled. Secure one copy and you will be desirous of obtaining every subsequent issue.

THE PRACTICAL MEDICINE SERIES, 1913. Volume I. General Medicine. Edited by Frank Billings, M.S., M.D., Chicago, and J. H. Salisbury, A.M., M.D., Chicago. Three hundred ninety pages. Cloth. Price $1.50. Series of ten volumes $10. The Year Book Publishers, 40 Dearborn street, Chicago.

There probably does not exist a similar volume that contains so many practical abstracts of the progress made in general medicine as does this volume of this popular publication. It is a book that should be on the desk of every practitioner and by referring to it often he will be the recipient of much useful knowledge. Infectious diseases, diseases of the circulatory system, of the blood, ductless glands, metabolism and of the kidneys are covered in this edition and the modern opinions and recent investigations and observations are very fully covered.

DISEASES OF THE RECTUM AND PELVIC COLON. By Martin L. Bodkin, M.D., Rectal Surgeon at St. Mary's Hospital, New York. 416 pages. Cloth. Numerous illustrations. E. B. Treat & Co., 241-3 W. Twenty-Third St., New York City. Price, $2.50.

A book, the result of the zealous purpose on the part of the author to simplify the descriptions of the common diseases of the colon, sigmoid, rectum and anus and to present the description in the plainest and most direct language. The subject of hemorrhoids is given particular attention, as is also "The Relation of Rectal Diseases to Gynecology." The work gives not only his personal views, born from a large experience, but also outlines the opinions and methods of other authorities on the subject. He who is desirous of treating diseases of the rectum cannot afford to forego the possession of this volume. It merits a favorable reception.

HYGIENE AND SANITATION. A text-book for nurses. By George M. Price, M.D., director Joint Board of Sanitary Control; director of Investigation, New York State Factory Commission. 12mo; 236 pages. Cloth, $1.50 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

The duties of the trained nurse are no longer limited to the simple care of the sick. She now enters the field of prophylaxis and her assistance in preventative medicine has become invaluable. She is an important factor in social, municipal and public health work. Every day she is presented with opportunities to impress on those with whom she comes in contact some of the principles of hygiene and their practical application. This new book from the pen of Dr. Price gives to her a knowledge of the elements of hygiene in its various branches. It is a work that is commended to the nurse and to all persons interested in the prevention of the spread of disease. Its text makes it very suitable and of value for home use. The physician may read it with profit; further, he can do no better than to recommend it to his staff of nurses; and lastly, he may well urge that many of the fathers and mothers of the families in his practice be urged to secure this volume and study its teachings. It should be in the library of every training school for nurses.

A TEXT BOOK OF BIOLOGY. FOR STUDENTS IN MEDICAL, TECHNICAL AND GENERAL COURSES. By William Martin Smallwood, Ph.D. (Harvard), professor of Comparative Anatomy in the Liberal Arts College of Syracuse University, and in charge of Forest Zoology in the New York State College of Forestry at Syracuse. Octavo, 285 pages; illustrated with 243 engravings and thirteen plates, in colors and monochrome. Cloth, $2.75 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

Biology is now recognized as one of the fundamental sciences in the study of medicine and most of the medical colleges require either a knowledge of it for entrance, or include it as a part of the preliminary instruction. A broader interest has recently been awakened in this subject than ever before. It is therefore timely that a new text-book to meet the needs of the student should make its appearance. This volume is one of high standard and is an excellent instruction book. We congratulate the publishers on the form in which it is produced, its numeorus excellent illustrations and the author in producing a book so consistent with the modern ideas and opinions on the subject. The method the author has followed leads the reader and student to think for himself and cultivate his powers of observation. To the physician who graduated before biology was generally taught, this work is cordially commended as being of especial interest and value. It certainly merits the consideration of every man engaged in the scientific pursuit of his profession.

THE GENESSEE COUNTY SOCIETY CORDIALLY INVITES YOU TO ATTEND THE 48th ANNUAL MEETING ON SEPT. 4-5 AT FLINT

The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, SEPTEMBER, 1913 No. 9

Original Articles

THE OPERATIVE RELIEF OF OBSTRUCTIVE HYPERTROPHY OF THE PROSTATE

WITH AN ANALYSIS OF NINETEEN SUCCESSIVE SUCCESSFUL CASES *

PAUL MONROE PILCHER, A.M., M.D.
BROOKLYN, N. Y.

The onset of obstructive hypertrophy is usually insidious. The patient wakes more often at night and finds that he sleeps better if he empties his bladder when he wakes. Gradually a habit is formed of waking often to empty the bladder at night, so that it seems as if the patient urinated more frequently at night than during the day. The patient rises in the morning unrefreshed with the memory of a fretful, disturbed sleep. Again, the existence of a prostatic overgrowth may be first revealed to a patient by a sudden inability to pass his urine following some exposure to cold or moisture, or excessive indulgence in alcohol or coitus. The onset of cystitis with or without the added discomfort of calculus formation in the bladder are final touches to complete discomfort of the patient. The terminal stages with its degrading catheter life and gradually advancing kidney degeneration come slowly but surely, and if the obstruction be not relieved, the unfortunate owner of the prostate is condemned to a miserable and filthy invalidism, and in a relatively short time death is welcomed.

Too often the general practitioner is still swayed in his judgment as to the possibilities of relief in these cases by the experiences of a previous decade, but let me assure him that the advances made in this branch of surgery have been most tangible and brilliant, not only in the relief of the urinary obstruction, but also in bringing permanent relief from the mental and physical degenerations associated with chronic prostatism.

PROSTATECTOMY NOT AN EMERGENCY OPERATION

Prostatectomy should never be an emergency operation. In other words, adequate preparation not only can, but should be made of the patient in every case by properly treating the bladder and kidneys before operation, and the time for enucleation of the prostate should be made to coincide with the period of greatest renal sufficiency attainable. In the earlier cases where infection of the bladder has not taken place, and a catheter can be easily inserted into the bladder, a permanent catheter may be introduced to keep the bladder continuously empty over a period of time of not less than a week. If this is done, the kidneys are relieved of the back-pressure from the bladder and there is avoided sudden relief of the pressure, which reacts directly and unfavorably on the kidneys if brought about at the time of operation and is coupled with the general and local effects of the operative traumatism.

PRELIMINARY CYSTOSTOMY

If the patient has a chronic cystitis, the indication is positive to do a preliminary suprapubic cystostomy under local anesthesia for a number of reasons. First, in those cases already suffering from constitutional disturbances, a permanent catheter is not without danger. Second, *a suprapubic opening may be made in the bladder under local anesthesia without much shock to the patient and at the same time will complete the first step for the later enucleation without the added shock of the enucleation itself.* It provides a complete drainage of the bladder; it permits of a thorough examination of the bladder and prostate, and it also provides a very efficient means of treating the bladder if it is diseased.

Another very great advantage in this preliminary cystostomy is the exposure of the tissues surrounding, or involved in, the operation wound to infection and the production of protective

* Read before the Kent County Medical Society at Grand Rapids, Michigan, May 14, 1913.

granulations in these tissues before the major operation is begun, so that if infection is to take place it will occur in the suprapubic wound before the enucleation of the prostate complicates the recovery.

Since we have adopted the two-step operation, thus managed in these cases, there has been an almost entire disappearance of the slough-encrusted suprapubic wounds, which were a usual accompaniment of the operation done at one step. The preliminary operation is done quickly under local anesthesia, and *the actual enucleation of the prostate is done after a week's interval under complete anesthesia of from five to ten minutes' duration.* If for no other reason than that this operation shortens the time of general anesthesia and can be done without using the elevated hip position in aged men, we feel that it should strongly recommend itself.

We have now a series of nineteen successive successful cases operated on by this method, the average age of these patients being about 70. In nearly every case the operation had been deferred by the patient until the disease had reached the stage where surgery was invoked as a last resort; one case having had complete obstruction for three years; one patient having complete anuria, and many cases with advanced renal disease and foul cystitis. In nearly all of the cases the age and physical condition of the patients was such that any operative interference was undertaken with questionable hope of success—and yet all of these patients entirely recovered from the operation, and regained ability to voluntarily control their bladders and empty them without the use of the catheter. In their later history two of these patients have died since the operation, one from cancer of the cecum and one from cancer of the gall-bladder, both of which conditions were known to exist at the time of the prostatectomy, but they were free from the distress due to urinary obstruction during the remaining months of their lives.

TECHNIC OF PRELIMINARY CYSTOSTOMY

The preliminary cystostomy we consider of utmost importance in these cases. It is done under local anesthesia; the bladder is opened as high up near the peritoneal fold as possible; the bladder explored with the finger, and stones, if present, removed. Then a Pezzer catheter, with its mushroom end in the bladder, is sutured in place in the wound in such a way that no urine will leak out beside it. The divided fascia, muscular planes and skin are carefully sutured together around the catheter. In this way is accomplished the primary indication for the operation, that is, the relief of the obstruction to the outflow of urine, and this by a comparatively simple operation.

And it accomplishes something else. It exposes the suprapubic tissues to infection and allows them to fight the infection without the added irritation of the infected urine continually bathing them, and without the added depression following removal of the prostate. A reactionary period usually follows any bladder operation, during especially the second, third and fourth days. This is the greatest period of danger to the patient and, if any weakness in his economy is going to develop, it will usually show itself then. Usually these enfeebled patients have some fever and depression on the second and third day, and if renal insufficiency is a factor, it will be most marked then. By this method of procedure, then, the patient approaches the most dangerous phase of his ordeal, preceded by the minimum of surgical shock, the urinary obstruction overcome, and a perfectly drained wound. It is astonishing how uniformly these wounds heal by primary union about the Pezzer catheter. Should the patient survive this primary ordeal, the temperature falls to normal, the septic phenomena subside, the appetite returns and the general morale of the patient improves.

ENUCLEATION OF THE PROSTATE

A week after the first operation in the majority of cases the prostate may be removed. This may be accomplished in a few minutes and usually without the use of any further exposure of fresh tissue except at the neck of the bladder. An important point in the technic is leaving *in situ* all the sutures which were placed at the primary operation, especially the strong silk sutures. This allows us to dilate the wound to a considerable degree without tearing it open, and adds greatly to the rapidity with which the suprapubic wound heals. The method of enucleating the prostate varies with the individual case; both the intra-urethral enucleation and the removal of adenomatous gland entire within its capsule are practiced. After removal of the gland a catheter is passed through the urethra and the raw area from which the gland has been removed is packed tightly with narrow gauze, if there is any marked bleeding, the catheter serving as a guide and center around which the gauze is packed. A large drainage tube is introduced through the suprapublic wound and the end of the gauze packing is brought out through the tube. The wound is then carefully sutured around the drainage tube

if necessary. It will be found as a rule, that if the primary sutures are not disturbed, the wound needs no further suturing. After twenty to twenty-four hours the gauze packing is removed and the suprapubic tube is replaced by a Pezzer catheter. The urethral catheter may remain in place for twenty-four hours longer. In a few hours the Pezzer catheter can be depended on to carry off all the urine. In most cases the Pezzer catheter is removed within a week, the healing of the suprapubic wound follows promptly.

ADVANTAGES OF THE TWO-STAGE OPERATION

This operation, in two stages, seems to fill the surgical requirements of most cases better than any previous method, and we adopt it now in all cases. It is the safest for the patient, because it accomplishes its purpose with the minimum of surgical shock, requiring only a few minutes of general anesthesia, avoids the long continued sloughing-encrustated suprapubic wound, allows of a complete removal of the prostate, and a full control of the hemorrhage. I believe its adoption will greatly lower the mortality in this class of cases.

AN ILLUSTRATIVE CASE

In illustration of this method I quote the post-operative course in the last case operated on by us in a series of nineteen consecutive cases. The patient was a man 72 years of age. The primary cystostomy was done under local anesthesia with a few whiffs of chloroform. The bladder was sutured tightly around the Pezzer catheter, the suprapubic wound was carefully sutured in layers, there was no leakage around the catheter. A week later the Pezzer catheter was removed and the prostate enucleated. The primary sutures were not disturbed. The technic already described was followed. Twenty-four hours after the enucleation the packing gauze, the drainage tube and the urethral catheter were removed and the Pezzer catheter was replaced in the suprapublic wound. Normal urination was established forty-eight hours after the operation and the suprapubic wound closed four days after the primary operation and there has been no leakage therefrom since. Some of our other cases show closure of the suprapubic wound nine, eleven and fourteen days after the operation, and it is exceptional for a fistula to exist more than three weeks.

It is a practical fact that the suprapubic drain inconveniences patients to a minimum degree when managed in the manner described. It is not desirable to entirely close the bladder at once after enucleating the prostate on account of the possibilities of intercurrent hemorrhage which is concealed if the bladder is closed. The importance of this precaution has been demonstrated by repeated experiences of our own and has been testified to by many other surgeons.

REPORT OF CASES

In reporting the following series of cases, we do so to demonstrate the excellent results which this simple technic has achieved in our hands.

CASE 1. Admitted to the Pilcher Hospital July 14, 1911. Referred by Dr. Edson of Brooklyn. Patient aged 65 years. Complete retention of urine for six months. Residual, 14 ounces. Permanent catheter four days. Suprapubic enucleation of prostate on July 17.. Wound healed in twenty-one days. Complete control of urine.

Diagnosis: Adenomatous hypertrophy of the prostate.

CASE 2. Admitted to St. John's Hospital July 21, 1911. Patient aged 75 years. Seven attacks of complete retention. Residual urine 24 ounces. Foul cystitis. Preliminary cystotomy July 22. Enucleation of prostate on July 26. Time, five minutes. Wound healed in twenty-five days. Complete control.

Diagnosis: Adenomatous hypertrophy of the prostate.

CASE 3. Admitted to the Pilcher Hospital Nov. 12, 1911. Referred by Dr. H. F. Williams. Patient aged 75 years. Marked cystitis. Small residual. Preliminary cystostomy Nov. 13, 1911. Enucleation of the prostate Nov. 20, 1911—Epididymitis. Wound healed in two months. (Patient died six months after operation from carcinoma of the gall-bladder.)

Diagnosis: Adenomatous hypertrophy of prostate.

CASE 4. Admitted to St. John's Hospital Nov. 2, 1911. Partial catheter life for five years. Aged 74 years. Suprapubic cystostomy by Dr. Frank Sammis Nov. 3, 1911. Small calculus removed. Prostate enucleated Nov. 8, 1911. Wound healed in four or five weeks. One year later suprapubic cystostomy for recurrent calculi. Good recovery.

Diagnosis: Vesical calculus; adenomatous hypertrophy of prostate.

CASE 5. Admitted to the Pilcher Hospital Nov. 21, 1911. Aged 71 years. Residual 20 ounces. Suprapubic cystostomy Nov. 22. 1911. Prostate enucleated November 28. Wound closed in four weeks. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

CASE 6. Admitted to St. John's Hospital Dec. 7, 1911. Aged 68 years. Previous perineal prostatectomy three years ago. Residual 6 to 8 ounces. Suprapubic cystostomy and enucleation of a middle lobe ball valve enlargement of prostate Dec. 11, 1911. Wound closed in eighteen days. Perfect recovery.

Diagnosis: Adenomatous enlargement of middle lobe of prostate.

CASE 7. Admitted to Pilcher Hospital Dec. 17, 1911. Aged 64 years. Complete retention for three years. Suprapubic cystostomy Dec. 18, 1911. Crescent shaped calculus removed. Enucleation of prostate December 23. Wound healed in about twenty-three days. Perfect recovery.

Diagnosis: Vesical calculus and adenomatous hypertrophy of prostate.

Case 8. Admitted to Pilcher Hospital Jan. 22, 1911. Aged 60 years. Residual 12 ounces. Suprapubic cystostomy January 23. Enucleation of prostate January 27. Epididymitis. Wound healed in twenty-nine days. Perfect recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

Case 9. Admitted to Pilcher Hospital Jan. 26, 1912. Aged 68 years. Residual 10 ounces. Suprapubic cystostomy January 27. Enucleation of prostate February 3. Wound healed in nine days. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

Case 10. Admitted to Pilcher Hospital March 28, 1912. Residule 15 ounces. Aged 72 years. Suprapubic cystostomy March 29. Enucleation of prostate April 2. Secondary hemorrhage. Wound healed in twenty-one days. Perfect recovery. (Patient died ten months later of carcinoma of the cecum.)

Diagnosis: Adenomatous hypertrophy of prostate.

Case 11. Admitted to the Pilcher Hospital May 1, 1912. Aged 67 years. Residual urine 20 ounces. Suprapubic cystostomy May 2. Enucleation of prostate May 16. Urinated voluntarily on eighth day. Wound closed in eleven days. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

Case 12. Admitted to Pilcher Hospital May 22, 1912. Aged 69 years. Residual urine 30 ounces. Permanent catheter sixteenth day. Suprapubic cystostomy and enucleation of prostate June 7. Wound closed in about two weeks. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

Case 13. Admitted to Pilcher Hospital July 10, 1912. Aged 68 years. Complete retention for two days. Suprapubic cystostomy July 10. Enucleation of prostate July 25. Secondary hemorrhage one week after operation. Packing. Repeated hemorrhages for two weeks. Bladder reopened widely and bleeding controlled by bi-polar high frequency spark applied to oozing surface. Suprapubic fistula closing slowly. Some leakage after six months when lying down. Imperfect recovery. General health good.

Diagnosis: Fibro-adenoma of the prostate.

Case 14. Admitted to Pilcher Hospital July 17, 1912. Aged 75 years. One attack of complete retention. Suprapubic cystostomy July 18. Enucleation of prostate July 30. Wound closed in five weeks. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate, with valve-like median lobe.

Case 15. Admitted to Pilcher Hospital Sept. 26, 1912. Aged 52 years. Epididymitis from instrumentation. Suprapubic cystostomy and enucleation of prostate October 11. Wound healed in twenty-one days. Complete recovery.

Diagnosis: Tuberculous hypertrophy of the prostate.

Case 16. Admitted to Pilcher Hospital Oct. 21, 1912. Aged 67 years. Complete retention four months. Permanent catheter two days. Suprapubic cystostomy and enucleation of prostate Ooctober 23. Wound closed in eighteen days. Complete recovery.

Diagnosis: Adenomatous enlargement of prostate.

Case 17. Admitted to Pilcher Hospital Nov. 17, 1912. Aged 61. Complete retention two weeks. Suprapubic cystostomy November 18. Removal of vesical calculus. Enucleation of prostate and resection of seminal vesicles November 26. Complete recovery from operation. Wound healed in twenty-six days.

Diagnosis: Vesical calculus. Carcinoma of prostate and seminal vesicles.

Case 18. Admitted to Pilcher Hospital Dec. 20, 1912. Aged 67 years. Suprapubic cystostomy December 21. Three small calculi removed. Enucleation of prostate December 31. Wound closed in three weeks. Complete recovery.

Diagnosis: Vesical calculi. Adenomatous hypertrophy of prostate.

Case 19. Admitted to Pilcher Hospital March 15, 1913. Aged 73 years. Suprapubic cystostomy March 16. Enucleation of prostate March 22. Wound healed in five days. Complete recovery.

Diagnosis: Adenomatous hypertrophy of prostate.

145 Gates Avenue.

ENTEROSTOMY AND ENTEROTOMY AS LIFE-SAVING PROCEDURES

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CHICAGO

Notwithstanding the great advances that have been made in abdominal surgery and in spite of the frequent contributions to the subject of intestinal surgery, our present-day results leave much to be desired. The late diagnosis and then the efforts to obtain an intact intestinal tract, combine to maintain a high mortality. Surgery is rejected or postponed with the hope of getting a bowel function, and then the surgeon's or the patient's unwillingness to accept anything less than an ideal result leads to a fatal resection. The surgeon is not alone to blame; there are patients who would fail to appreciate being saved from a fatal ileus if they were forced thereby to face the discomfort of a fecal fistula and the horror of another operation.

Bowel complications following operations have been frequent and they have had an unnecessary mortality for the reason that necessary action on the part of the surgeon has been deterred, because a second operation would be interpreted by the patient and friends to mean that the first operation had been less than ideal if not actually harmful, and sometimes at least they would be right. Level-headed and courageous, indeed, is the surgeon who can act in the face of a disastrous postoperative ileus just as though he had not been the previous operator.

Much could be said of bowel complications in general and the means of preventing them, and we must admit the superiority of the prophylactic treatment, but my purpose is to discuss some

points of life-saving importance in those cases in which a living patient with a fecal fistula is to be preferred rather than a dead patient with an intact intestinal tract. It is a well-known fact that many forms of ileus have very little immediate significance as to life if an exit is furnished above the part affected for the escape of bowel contents. The fatality of the bowel obstruction is due largely to accumulation of, and changes in, bowel contents, above the obstruction and to their effect on the bowel wall. Even though the ileus be due to peritoneal infection, the retained bowel contents play an important part in the fatal issue whether they be retained by paralysis or by an obstruction or both, and I am led to the opinion, more and more, that there is an element of bowel obstruction in most cases of severe peritoneal infection — that instead of paralysis existing alone the bowel is kinked, compressed, strictured by bands, etc., to the extent that retained bowel contents furnish a strong ally to the infection outside the bowel.

Under normal conditions peristalsis is favored by the presence of a moderate amount of intestinal contents. Sajou and others have pointed out that bacteria which normally inhabit the bowel become pathogenic with any marked increase or decrease of peristalsis. They speak of the colon bacillus under abnormal conditions developing the virulence of the typhoid bacillus. Under conditions of trauma, peritoneal infections or obstruction, bowel contents are retained, bacterial activity takes place and a high degree of toxicity is produced. Gases are created to an excessive degree and absorption and escape is retarded, and the bowel thus becomes distended; and the distension, as well as the inflammation, interferes with the circulation. Under conditions of ileus then, added to the underlying cause and the damage that it may do to the bowel, we find above the obstruction a more or less highly distended intestine with degeneration of the bowel wall and filled with highly toxic contents which cause toxemia even when such contents remain in the impaired portion of the bowel, but which more rapidly affects the patient if the removal of the bowel obstruction allows the infected contents to pour into the healthy portion of the bowel below the obstruction with its absorptive powers unimpaired.

After operation we may have a mechanical bowel obstruction uncomplicated by any infection except that of an intra-intestinal source, or we may have a peritoneal infection with paralytic ileus with the obstruction, if at all, entirely secondary to this; but we may have the two conditions so closely accompanying one another, the peritoneal infection causing plastic adhesions, and these obstructing the bowel, the bowel obstruction causing distension and further bacterial development and invasion, etc., that it is difficult to say which is primary. It is plain then, that in all cases of ileus we have two conditions to combat: *first, the condition which caused the ileus and next the crippled bowel and toxic contents above the obstruction.*

The removal of such bowel contents and the establishment of a ready exit above the damaged area, providing the normal patency cannot be established by a procedure consistent with the life of the patient, is important. This not only relieves the patient of the fatal bowel contents, but turns this portion of the alimentary tract above the point of obstruction into a food-absorbing area, until such time as the patient's condition will warrant a safe removal of the obstruction.

We have found in some cases that the obstruction is easily removed, but that the bowel contents with the distention was a menace, and therefore an enterotomy with removal of bowel contents was carried out, with closure afterward. In other cases the obstruction was overcome by separating plastic adhesions, yet we lacked confidence in the affected area and enterostomy was decided on as a temporary procedure. In one case enterostomy was performed twenty-four hours after an enterotomy. In one recent case an ileostomy followed twenty-four hours after a cecostomy. In one case previously reported, repeated enterotomy was performed with happy results, although I would now be inclined to choose enterostomy. Any one who has seen the ready relief of the enterotomy of the herdsman or veterinary surgeon will readily appreciate the value of thus allowing the distended bowel to collapse in the human, aside from the fact that it becomes a procedure of necessity at times in order to return the bowels to the abdomen. If the patency of the bowel is not restored, or if doubt is entertained as to the permanency of function of the lower bowel, the safety furnished by an enterostomy will well warrant the inconvenience of a fecal fistula which may be counted on to close if the bowel becomes patent. It is not necessary to point out the need for operation in cases of bowel obstruction, but any effort that can be made to bring these cases to earlier operation is timely; fewer cases would need resection, and those needing it would be in better condition for it. The patient should learn the lesson that

it is the condition and not the early operation that is dangerous or fatal.

The next point I wish to make has not been uniformly adopted, and that is that in late cases a quick enterostomy should take the place of any prolonged effort to relieve the obstruction, and that enterotomy or enterostomy should accompany the operation for freeing the bowel if the bowel is left in doubtful condition.

Another point which has received altogether too little attention is that some degree of mechanical interference accompanies most peritoneal infections, and this with the paralytic ileus causes the bowel contents to be retained, which, undergoing pathogenic changes, furnish no small amount of the toxic agents which overwhelm the patient. Nearly every peritoneal infection arising from the lower abdomen throws the lower part of the alimentary tract out of use, while above this is retained toxic substance in a portion of the bowel that would functionate if any opening were provided, but which, if allowed to remain, aid in bringing about a fatal issue. Great relief would result from the escape of the gas, feces and toxins, and the collapse of the bowels. We must not loose sight of the value of stomach lavage at this time, but, should the relief be temporary or inadequate, it should be followed by enterostomy. Oftentimes a peritoneal infection which appears grave assumes comparative insignificance and is under complete control with intra-intestinal element of danger removed. It seems apparent then, *that few, if any, cases of peritoneal infection should proceed to a fatal issue without an effort having been made at the proper time to furnish an exit for the dangerous intestinal contents.* Instead of a tedious and possibly fatal delay to make a differential diagnosis between mechanical obstruction and peritoneal infection let us remember that either is greatly complicated by retention, and little hope may be entertained for the recovery of the patient unless this retention can be relieved. Peritoneal infections should be treated by peritoneal and intestinal drainage if milder measures fail. Obstruction should be removed and enterotomy furnish relief for an over-distended bowel, or enterostomy should furnish a means of escape if the obstruction remains or the relief is uncertain, and usually enterostomy should replace efforts to remove the obstruction in delayed cases or weak patients.

Technic.—I shall not go into great detail as to the technic. Enterotomy has been the operation of choice for the removal of foreign bodies, the removal of distending gases and liquid or solid contents when the bowel was left unimpaired and by some is used for intra-intestinal medication. Enterostomy is used when temporary or permanent drainage is desired. Patients requiring these operations in acute conditions are usually not good subjects for operation, and freedom from the harmful effects of anesthesia is desirable. This may vary somewhat according to individual cases and different surroundings. We have sometimes used no anesthesia, at other times local anesthesia, either freezing or infiltration, has been used. At other times gas anesthesia has been employed and is quite satisfactory. Cases may present in which ether anesthesia may be justifiable, but it has not yet been necessary in my work unless the obstruction was to be removed. If the patient's condition is not good no extensive manipulation should be anticipated. The loop of the bowel above the obstruction as evidenced by great distention, and as low as is consistent with certainty of action, should be drawn out of the small opening, the loop is protected and an incision made or a trocar inserted, a glass tube or rubber rectal tube is usually inserted. After moderate efforts to remove bowel contents a purse-string suture may encircle the rubber tube, making a tight closure, the bowel is then attached to the peritoneum or fascia at the incision. Stitches to close the abdominal wound are of little value as they soon cut out, and for this reason I think it usually best to make a new abdominal opening for attachment of the bowel if the primary incision was made large for exploration. The rubber tube may be connected up with a bottle or be placed in a pus basin and thus the dressing may remain clean for several days. If, however, good bowel results are not obtained the tube may be removed, allowing the bowel contents a more direct exit. If this opening fails to give results, another effort should be made at some higher portion of the intestine.

Stewart recommends the use of the Murphy button to attach the bowel to a rubber tube, and Levison describes a complicated use of rubber dam, but I have found a purse string around a rubber tube to work neatly and protect the wound and dressing several days. When the bowel is in good condition, a small Murphy button attaching the bowel to a good-sized piece of rubber dam furnishes a good means of protection. Simplicity and quickness are important, however, and no great time should be lost. The bowel may be caught up to the wound with suture and the contents allowed to pour out. The wound and skin may be protected by the use of compound

tincture of benzoin, zinc oxid ointment or Lassar's paste. At times a periodicity of evacuation may be established which is a great aid in keeping the parts clean.

It seems that the higher the incision the more irritating the excretion. If the opening is too high the patient will suffer from inanition. J. W. Elliot collected the ejected fluid from the proximal portion of the bowel and injected it into the distal portion in a case of high enterostomy. Others recommend the injection of easily-digested or predigested food.

The Prognosis.—A carefully performed enterostomy is very little tax on a patient's strength and gives such relief as to decidedly aid the patient's chances for immediate recovery. If the obstruction is allowed to remain, as is frequently advisable, the fecal fistula will continue, but in most cases the fistula has closed if the bowel contents were free to travel the normal route. Great caution should be exercised in not yielding to the patient's entreaties to have the secondary operation for closure undertaken too soon, as the patient will get in better condition for operation as time goes on, providing the fistula is not too high, and many cases will close spontaneously. No definite rules can be laid down as to what the secondary operation should be. In one case it should be a resection with end to end or side to side anastomosis, and in another it might be merely a closure of the fistulous opening, and in still another a side to side anastomosis eliminating the obstruction may be done.

In conclusion I would say that every effort should be made to bring patients with bowel complication to earlier operation.

In cases of obstruction which can be relieved, but in which great distention has taken place, enterotomy may be chosen and the harmful contents removed.

In cases of obstruction not able to safely stand resection, and in cases of paralytic ileus, a quick enterostomy should be performed.

In cases in which pathology in the lower portion of the tract is aggravated by bowel contents as in colitis, sigmoiditis, divertieulitis, typhoid enteritis (Escher), etc., much relief may be obtained by diverting the flow through a temporary enterostomy.

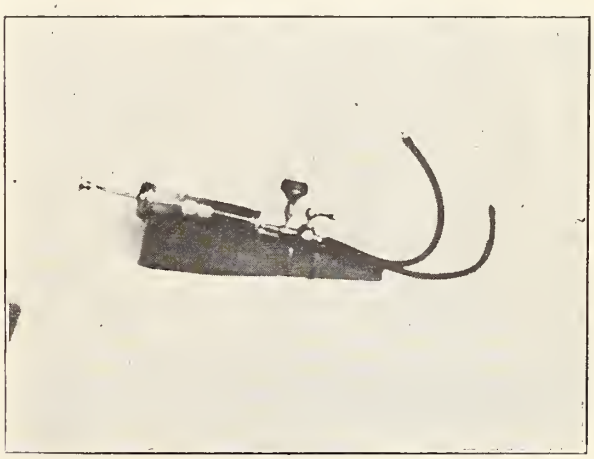
Cases of peritoneal infection are frequently complicated by complete or partial obstruction as well as by paralysis. Enterostomy may be reasonably expected to improve either condition.

A METHOD FOR THE TRANSFUSION OF FRESH NORMAL BLOOD

HUGO A. FREUND, M.D.
DETROIT

During the past few years the indications for transfusing fresh blood from a donor to patient have been steadily increasing. That this procedure has now in innumerable instances saved, and at other times prolonged life, cannot be questioned. Without entering into the explanations for these phenomena, it has become universal experience that hemorrhages of some forms, as for example, in the melena neonatorum, are checked by the addition of a small quantity of blood to the recipient circulation.

We are indebted to Ginsburg, Crile and others for perfecting the surgical technic of direct transfusion of blood. There have been many modifications of the method suggested by these investigators. Even now the technic has in no way



Photographic Appearance.

been simplified. The methods are successful only in the hands of the most dexterous operators, and even then failures are frequent. Bernheim[1] has recently brought out this fact clearly, and the discussion that followed his paper at the meeting of the American Medical Association at Minneapolis emphasized, among others, two very important facts. First, that only those skilled in the procedure should attempt it. Second, that it is even then at times unsuccessful.

The indication for transfusion is sometimes emergency, and at other times necessary in surroundings where neither the instrument nor the technic of the surgeon are available. Therefore, it has seemed desirable that a method be devised, simple, yet adequate, that would permit anyone to properly perform this procedure. Kimpton

1. Bernheim: Jour. A. M. A., July 26, 1913, p. 268.

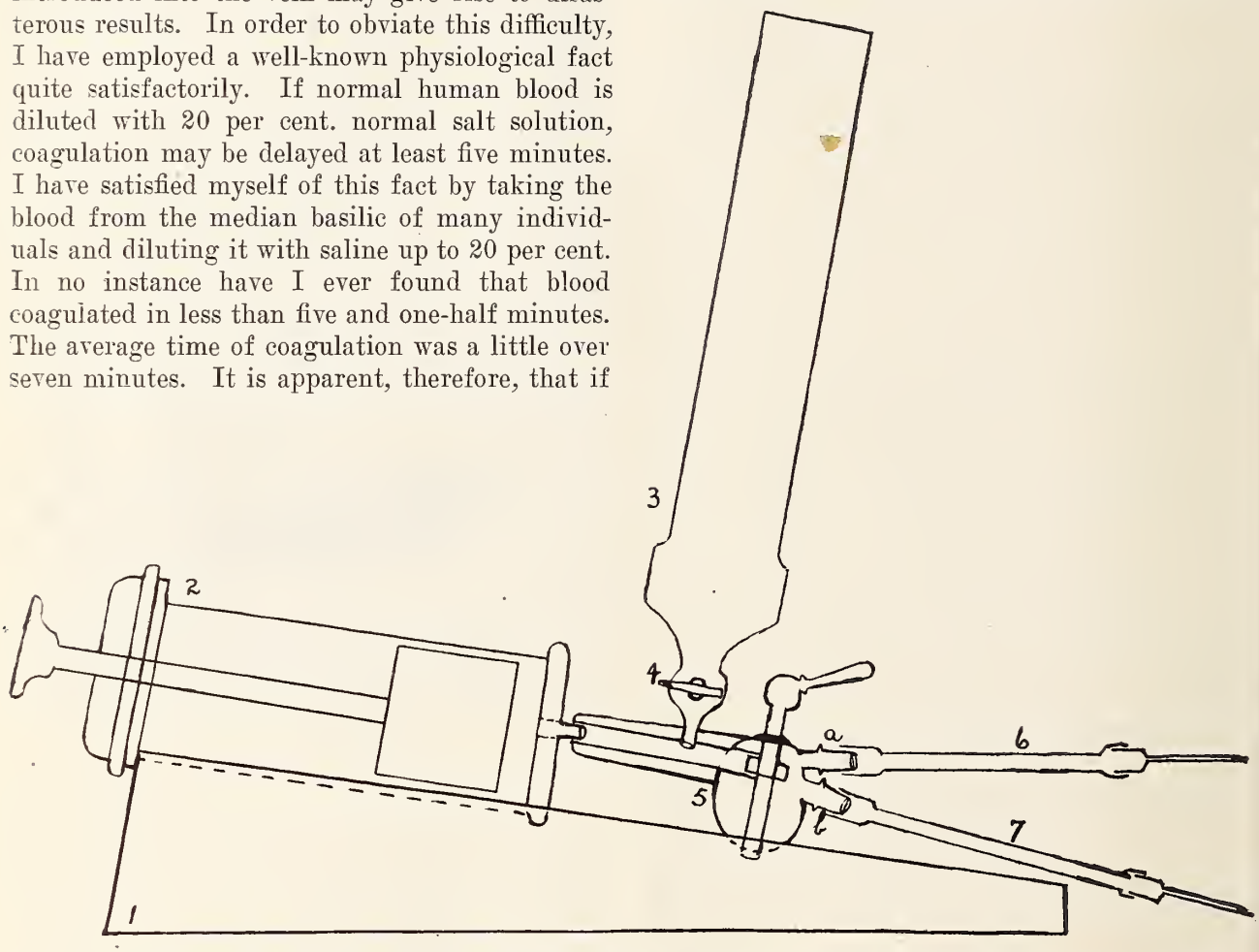
and Brown[2] have devised a tube composed of a glass cylinder with a specially curved canula, and a method whereby suction or pressure may be applied when desired to withdraw or inject blood. This tube is lined with 50 degrees, Centigrade, paraffin. It needs special preparation for sterilization. The method has evidently met with success in a number of hands.

The great drawback in every method of this kind which brings the blood into contact with any foreign substance is the rapid formation of fibrin which soon plugs the needle or tube, and if introduced into the vein may give rise to disasterous results. In order to obviate this difficulty, I have employed a well-known physiological fact quite satisfactorily. If normal human blood is diluted with 20 per cent. normal salt solution, coagulation may be delayed at least five minutes. I have satisfied myself of this fact by taking the blood from the median basilic of many individuals and diluting it with saline up to 20 per cent. In no instance have I ever found that blood coagulated in less than five and one-half minutes. The average time of coagulation was a little over seven minutes. It is apparent, therefore, that if blood be withdrawn under aseptic precautions, diluted 20 per cent. with normal saline solution, and immediately injected again into the vein of a recipient, all indications for transfusion are fulfilled without introducing any foreign or dangerous substance into the circulation or modifying the constituents of the normal blood. This may be readily done without the need of surgical procedures or use of a paraffined tube.

2. Kimpton and Brown: Jour. A. M. A., July 12, 1913, p. 117.

AUTHOR'S METHOD

Meeting as one does so frequently in internal medical practice indications for transfusion, I devised a method and have employed it with satisfactory results for about six months. Dr. J. Walter Vaughan of this city, to whom I showed this method and instrument, has urged me to report it. He mentioned its usefulness in the discussion of Dr. Bernheim's paper before the Surgical Section at the American Medical Association meeting of 1913. Since that time numerous requests for this instrument and for a description of it have come to both of us. I therefore wish to take this opportunity of describing the instrument and of the technic ready for its use.



1. Wooden inclined base. 2. Twenty-cubic-centimeter syringe. 3. Glass cylinder for normal saline solution. 4. Stop-cock. 5. Two-way irrigator with stop-cock and attachment to syringe. 6. Shorter tube with larger needle leading from donor. 7. Longer tube with smaller needle leading to recipient.

The original instrument consists of a well-fitting aspirating syringe, holding 20 c.c., a "two-way" stop-cock irrigator with a glass cylinder attached to this device, and two tubes with needles attached leading from each tube. The glass cylinder is fitted also with a small stop-cock. The whole is mounted on an inclined wooden base, which rests on the table. See diagrams.

METHOD OF PROCEDURE

Into the glass eylinder is poured normal physiologieal salt solution a little above body temperature. By opening the stop-eoek of the eylinder and drawing out the plunger of the syringe, normal salt solution is taken into the syringe to about 5 e.e. The stop-eoek is then elosed. Both needles are then held vertieally (as seen in the photograph), and normal saline washed through them until all air is removed from the rubber tubing and the needles. Four e.c. of normal salt solution still remains in the syringe. The larger needle is then inserted into the median basilic of the donor and fastened there with adhesive. The lever of the stop-cock is turned, permitting of suetion to be made from the donor. This shuts off the saline that remains in the tube going to the recipient. Immediately suction is made on the tube in the vein of the reeipient and the blood flows into the syringe. From the average vein 16 e.e. may be drawn into the syringe in less than half a minute. The syringe is revolved so as to thoroughly mix the blood and the saline. As soon as the syringe is filled, a little of the mixture of the blood and saline is injeeted baek into the donor, so as not to leave fresh blood without admixture of saline in the tube. The lever of the stop-coek is then turned toward the reeipient, who first reeeives the saline remaining in the tube and then reeeives the entire injeetion of blood. At this point, for safety, if the experiment has not proceeded within the spaee of three minutes, it is well to wash both the donor's and the reeipient's needles and tubes with a little saline solution, whieh may be obtained by opening the stop-cock from the cylinder and drawing salt solution into the syringe again. This may be done again and again until as mueh blood is injeeted as desired.

PERSONAL EXPERIENCES

I have employed this procedure sueeessfully in seven eases up to the present time. From one individual, a polycythemie patient, I took blood, 160 e.e. in all, and injeeted into a pernicious anemic. Recently, blood was taken from the jugular vein of a normal rabbit and reinjected into one of the veins of the ear. In all, but 20 e.c. was taken. The purpose was to observe if any ehange oecurred either in the heart or lung from the experiment. The animal was killed at the end of twenty-four hours, and the pathologic examination of the heart and lungs by Dr. Morse and myself revealed no gross changes, such as might come from the injeetion of a small clot or partiele into the lungs, giving rise to an infaret or pulmonary embolus.

I believe that this method is so simple, yet efficient, that its applieability will appeal to every general practitioner. The instrument is readily construeted, easily sterilized, offers very little ehance for infeetion, supplies the desired blood in any quantity and in a fresh state, and may be readily manipulated with a little praetice and little assistanee.

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SOME OBSERVATIONS ON ANESTHESIA *

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The purpose of this paper is to make some praetical suggestions coneerning the administration of anestheties. We shall not attempt a formal diseussion of any of the many questions that arise in conneetion with anesthesia. An effort will be made to report observations made during the administrations of a number of anesthesias. Such a paper will, of neeessity, eontain very little that is new and a great deal that has been said many times before. It is possible, however, that an oecasional diseussion of sueh a subjeet as this may be not without some benefit to us. The reiteration of old faets may serve to impress them better.

THE INDUCTION OF ANESTHESIA

The eourse of anesthesia often depends on a good start. The attitude of the patient toward taking the anesthetie has mueh to do with the way it starts. For this reason attention should be paid to the eonditions present when the patient is brought into the room. If a sensitive, nervous patient comes into a room where the doetors or nurses are talking and laughing, the effeet on the patient may be bad. Loud talking, discussing of operations, joking and story-telling often do not make a good impression on the patient.

The anesthetist who ean quiekly win the eonfidence of the patient has a big advantage. The patient is naturally apprehensive about the anesthetie. Frequently, the anesthetist is a total stranger to the patient. The patient knows that the surgeon has eonfidence in his ability to properly administer an anesthetie, but may know nothing else about him. A eareful, not too hurried, examination of the chest, the mouth and the general eondition gives the patient the impres-

* Read before the Kalamazoo Academy of Medicine, May, 1913.

sion that a real effort is being made to properly care for him. The patient almost always is made more comfortable and tranquil by being assured that conditions are favorable and that he will be able to take the anesthetic all right. Where a patient is very ill, an especial effort should be made to encourage and reassure him.

From the standpoint of the patient the beginning of anesthesia is the difficult part. It is the only part of which he has any knowledge or memory, and it is from this part that he will get his impressions of what it is to take an anesthetic. For this reason it is very desirable that the first stage of anesthesia should be made as little unpleasant as possible and that as little struggling and resisting as possible should occur. If without any particular directions to the patient, an ether-cone well charged with ether is put down over the patient's face, he is in trouble at once. He does not know what to expect, he is unable to breathe and feels that some terrible mistake is being made. He begins to cough and struggle; the anesthetic is badly started and the patient will always have a horror of taking any subsequent anesthetic. On the other hand, if the patient is told what to expect, if the ether is begun slowly and the patient told what to do, things start off better. If from time to time, the patient is assured that all is going well, he will be likely to get along better. It has been my observation that if a patient is told to blow out and to try to get the ether all out, he is much more willing to attempt it than when he is told to take deep breaths. Many patients seem to have a fear that the surgeon will begin his work before consciousness is gone. It is often advisable to let the patient know that he is not yet anesthetized fully and to assure him that nothing will be done until consciousness is gone. Coughing and choking during the first stages of ether anesthesia are, as a rule, due to the ether being given in too highly concentrated form. Often removing the cone and allowing air will be sufficient to establish regular breathing. From five to fifteen minutes are usually required to produce surgical anesthesia, depending to a great extent, on the state of mind of the patient. I am quite convinced that it is a mistake to try to hurry the first stages. Possibly in young and frightened children it may sometimes be best to smother them under, but the more I try, the more I believe in trying to take time with children as well as adults.

DUTIES OF THE ANESTHETIST

A few suggestions may be made as to the care of the patient while under anesthesia. Because a patient is unconscious is no reason why every effort should not be made to do those things which would make the patient comfortable were he awake. In emergency work, patients are especially likely to be neglected in this respect. I have seen patients anesthetized with heavy shoes on their feet with which they could do much damage to themselves. In women, hair pins are frequently a source of danger to the scalp. False teeth and other foreign bodies in the mouth are a menace. Large corpulent patients appreciate a comfortable pillow under the head to bring the head up in a normal position. Most patients are better off with some sort of a pillow under the head. In every case it is the business of the anesthetist to make sure that the arms of the patient do not hang over the table. Such a position may result in a troublesome paralysis. Rough handling of the patient in any way is not desirable. Constant pressure over the angles of the jaw for a prolonged operation may cause the patient much discomfort afterward. Unnecessary injury to the tongue or to the cornea is likely to cause trouble later. Awkward or unnatural position of the patient on the table should not be maintained any longer than necessary for the operative work. A prolonged Trendelenburg position is bad for the patient.

The purpose of anesthesia is to render the patient insensible to pain and to relax the muscles. When these objects have been attained, anesthesia is deep enough. Profound anesthesia is not only dangerous for the time being, but makes the patient more toxic afterward. The anesthetic should be as light as is compatible with rapid work and proper exposure. Vomiting is an accident, and the anesthetic should be deep enough to prevent this. In abdominal operations it is often observed that more anesthetic is required while the parietal peritoneum is being handled. When this has been opened and packed off, lighter anesthesia can be had without any trouble. The sooner the patient wakens after the operation the better it is for the patient. Anesthesia may often be timed so that signs of returning consciousness begin to appear as the last stitches are being introduced. It requires more attention and more exercise of judgment to maintain anesthesia of this sort than it does to keep the patient profoundly anesthetized with reflexes all gone, and with stertorous slow breathing. But later the patient must suffer on account of this profound intoxication. Postoperative

vomiting, bronchitis, pneumonia, albuminuria and the various other evidences of intoxication must bear a direct relation to both the depth and duration of anesthesia.

ANESTHESIA IN NOSE AND THROAT OPERATIONS

In operations on the throat and mouth, this factor is very important. If anesthesia is so deep that all reflexes are lost, the danger of postoperative complications from aspiration of blood and mucus are great. A profound anesthesia may facilitate operative work, but it is a source of danger to the patient. The administration of vaporized ether through a tube aids very greatly in obtaining a continuous light anesthesia in work about the mouth and throat. Anesthesia may be kept up while the operator is working and it is unnecessary to stop the operator from time to time on account of returning consciousness. This arrangement also makes the accident of vomiting during such operations much less likely to occur.

THE CHOICE OF ANESTHETIC

The discussion of the choice of anesthetic will not be entered into. Chloroform is probably much less safe than ether, and should not be given unless there are definite indications for it. Chloroform is often chosen for operations on children and for obstetric operations, without any special reason. In my experience, chloroform is as dangerous in such cases as in any other class, and should not be used as a routine procedure. The dangers of sudden death and post-anesthetic complications are as great in these cases as in any other. For obstetric anesthesia to control pain, nothing can take the place of chloroform, but when any obstetric operation is necessary and complete anesthesia is desired, ether is the more desirable anesthetic.

The claim is made that chloroform is pleasanter to take and is not so irritating to the respiratory passages. For some time we have been giving ether vapor passed through hot water by the method suggested by Gwathmey. Two ordinary bottles are used. In one hot water is placed and in the other ether. Air is forced through the ether and this air mixed with ether then passes through the hot water. Ether given in this way and started slowly is not any more unpleasant or irritating than chloroform, and may be given in cases of infections of the respiratory passages as safely as chloroform. A great deal of work has been done to test the effect of warming ether vapor, and most experimental workers come to the conclusion that ether vapor is not really any warmer after such procedures than when given by the open method. I am not in a position to question the accuracy of these experiments, but I am sure that patients suffer less irritation of the respiratory mucosa after passing the ether vapor through hot water. Theoretically, there is no reason why ether vapor should not be warmer after passing through hot water than when volatitized on the cone in close proximity to the patient's face. An argument in favor of the Gwathmey method is that the vapor is all washed and freed from any impurities that may be taken up by the water. Whether it is on account of the warming or the washing the vapor is less irritating.

NITROUS OXID AND OXYGEN ANESTHESIA

It may be of value to relate the result of our experience with nitrous oxid and oxygen for general anesthesia. Crile advises the use of preliminary medication with morphine and hyoscine or atropine where this anesthesia is to be used for any prolonged period. Patients relax better and take much less nitrous oxid. Patients do very much better with gas and oxygen with preliminary medication than without it.

The advantage of gas and oxygen are that it is pleasant, anesthesia is quickly produced, the patient is conscious as soon as the anesthetic is stopped and there are apparently no toxic after-effects. In the hands of one accustomed to its use it is as safe or safer than ether. Its disadvantages are first that it is expensive, and second, that it does not always produce complete relaxation. When the preliminary hypodermic is given relaxation is almost as perfect as with ether. There is sometimes a little struggling in going through the peritoneum and in walling off, but after this the anesthesia is often as even or more so than with ether.

A great many machines are made for the administration of gas and oxygen. The principal requirements for such a machine have been described as follows: First, an even, constant flow of the two gases without variation in pressure. Second, a single easily regulated valve for accurately controlling the mixture. Third, a simple reheating apparatus. Fourth, a face piece that makes an air-tight approximation to the face. Dental anesthetics sometimes fail, because this last requirement is not met with. An effort is made to anesthetize the patient with a mouth gag over the cheeks. The patient gets enough air around the gag to prevent sound anesthesia. A cork or rubber gag does not interfere with the administration of the gas.

Dentists are now using nitrous oxid to produce partial anesthesia or analgesia when preparing cavities. In some cases this gives excellent results, and when given with proper care, would seem to be entirely safe.

CONCLUSIONS

To sum up the things that we wish to emphasize in this paper:

1. Great care should be taken to induce anesthesia without excitement or struggling.
2. Patients under anesthesia should not be allowed to suffer any injury or be kept in awkward positions unnecessarily.
3. Anesthesia should be as light as is compatible with rapid work and good exposure.
4. Obstetric operations and operations on children are not *per se* indications for chloroform.
5. Ether vapor that has been warmed and washed is less irritating to the respiratory mucosa.
6. Gas and oxygen make the pleasantest and least toxic anesthesia.

THE USE OF PITUITRIN IN OBSTETRICS

WITH REPORT OF SIXTY-ONE CASES

W. E. WELZ, M.D.
DETROIT

It is the object of this paper to report my observations on the action of pituitrin in labor. I have used the extract of the posterior lobe of the pituitary gland in forty-nine private cases, and twelve hospital cases of women in labor at or near term. I have also used it in seven cases of unavoidable abortions, which were incomplete. As the hospital cases were under my observation during only a fraction of their labor periods, I will confine my remarks to the private cases, most of which were under my care from the commencement of labor.

PHYSIOLOGICAL ACTION

The hypophysis cerebri of pituitary gland is located in the sella turcica, a depression in the superior portion of the sphenoid bone. It is formed from an ectodermic pouch from the buccopharyngeal cavity which partly envelops a prolongation from the base of the anterior cerebral vesicle.[1] The pouch forms the pars anterior, the other the posterior lobe. The pars anterior is of importance because of its influence on growth and nutrition—particularly carbohydrates.

1. Minot's Embryology.

The extract from the posterior lobe acts as a powerful galactogogue.[2] It causes a long-continued rise of blood-pressure, due to the augmentation of the force of heart beat and peripheral vascular constriction.[3] Renal arteries dilate and marked diuresis, due to the stimulation of renal epithelium, occurs.[4] It stimulates both intestinal secretion and peristalsis. It is essential to carbohydrate metabolism, and injections of it produce glycogenolysis, and continued use causes excessive emaciation.[5]

Of prime importance is the effect of the posterior lobe extract on the pregnant uterus at or near term. Erdheim and Stumme[6] have shown that the color changes from a grayish red to white during pregnancy. There is a considerable increase in weight of gland of a primipara over a nullipara. That of a multipara weighs almost double that of a nullipara. The size increases correspondingly. During pregnancy there is a gradually increasing physiological activity until the termination of labor. After parturition there is an involution which is complete at the termination of the lactation period.

Considerable work has been done experimentally to demonstrate the action of hypophyseal extract on uteri of dogs, rabbits and guinea-pigs. The non-pregnant uterus responds by intermittent contractions after the injection into the body of moderate doses. That of the virgin reacts less strongly than that which has borne its young.[7] There is a slight increase of muscle tonus, and the contractions are weak.

There is a slight increase in the response of the uterus in early pregnancy over that of a non-pregnant uterus. Abortion may be produced by very large doses on lower animals, and when started before the injection the process is hastened by the extract. As pregnancy advances there is an increased susceptibility of the uterus to the action of pituitrin. The nearer term the stronger the contractions produced.

The maximum effect is seen during labor at term. The uterus is least sensitive at the beginning of the first stage of labor; the sensibility gradually increases from that time until the end of the second stage when the response is greatest. The maximum effect continues through the driving out period. The tonus is greatest; contractions come oftener, are stronger and of longer

2. Ott: Proc. Soc. Exper. Biol. and Med., 1911, viii, 41.
3. Oliver and Schafer: Jour. Physiol., 1895, xviii.
4. Schafer and Herring: Phil. Tr. Roy. Soc., London, 1906, cxcix.
5. Cushing: Pituitary Body.
6. Erdheim and Stumme: Beitr. z. path. Anat. u. z. allg. Path., 1909, xlvi.
7. Herman Fuhner: Deutsch. med. Wchnschr., 1913, No. 11.

duration after the use of the extract. The third stage shows less reaction than the previous one.

During lactation the effect is marked, but less so than during labor, but both tonus and contractions are increased. "The susceptibility of the uterus to pituitrin stimulation decreases as the period of lactation advances."[8] At the end of this stage the sensitiveness equals that of the non-pregnant uterus.

Pituitrin in ampoules containing 1 c.c. solution of 2 gm. of posterior portion of the gland, and pituitary extract in vaparoles containing 5 c.c. solution of 1 gm. of the gland were used. This was injected intramuscularly and caused little pain and no other local reaction. No toxic or deleterious symptoms were noted. Fresh preparations were used from the sealed tube so that there was no chance of contamination or deterioration. In cases the dose was repeated several times. It is my belief that the minimal effective dose on the average uterus is 0.2 gm. of the gland.

The effect on the human uterus is apparently the same as that produced on the lower animals. The non-pregnant uterus does not seem to react to the extract, though the slight effect produced may not be sufficient to be noted. It is not possible to induce labor in the pregnant woman by the use of ordinary doses. After labor has begun the effect is very slight at the beginning of the first stage. As the cervix thins out and the external os dilates the response to pituitrin increases. As the dilatation of the os externum becomes complete, the maximum result is noted. This continues until the expulsion of the fetus. The uterus continues through the third stage less affected than during the previous one. The effect on the uterus is to increase the muscle tonus. The effect on the contractions is to increase their frequency, lessen the time between them, strengthen and lengthen their duration. The uterus does not become tonically contracted as from ergot.

CASES AND AUTHOR'S EXPERIENCES

I have collected 49 cases from my private practice in which pituitrin was given to hasten the termination of labor which had begun. Of these, 31 were primiparae, 18 multiparae. All were measured and only one, No. 24, had a contraction of any importance. In no case was there any contra-indication for its use. The average time from the injection to the end of the second stage in primiparae was 3.8 hours. The average time of complete labor was 17.1 hours. The average time from the injection of pituitrin among multiparae until the end of the second stage was 3.17 hours, and the average time for the complete act was 9.8 hours. The majority responded to 1 c.c. pituitrin. Except in the cases noted, the response was very evident in the longer duration of contractions, shorter interval between them and greater strength. This was noted by the patient herself at the end of 5 to 10 minutes after injection. In two there seemed to be a tonic contraction at first with severer clonic contractions added at regular intervals. Case 43 was one which had a tonic contraction for almost one-half hour.

One objection to the use of pituitrin is the uncertainty of its action. A few women do not seem to respond at all or but slightly to it. Cases 47 and 48 illustrate this forcibly; No. 47 had a precipitate delivery after the injection, whereas she had been delivered of her other children after forty and thirty-two hours by forceps; No. 48 did not react to 4 c.c. from two different extracts, and the inertia was not overcome in the least. This labor was thirty-six hours and her first was only eighteen hours without the use of pituitrin. Cases 2, 10 and 20 show the same ineffectiveness. It is my belief that these uteri do not react, because there has been a deficiency of birth substances transported from the fetus.[9] These serve to activate the uterus and act as hormones for the secretion of pituitrin. A deficiency may deter the activity of the extract.

No doubt the inefficiency of the drug has at times been due to the age of the extract or a deteriorated product. This is evident in Case 10, where 4 c.c. had been given without any evident result. A 5th c.c. of an absolutely new product was very effective.

There is an individual variability in uterine activity and sensibility. Normally, there is a sufficient secretion of pituitary extract during labor to aid completion of the act. When there is a deficiency of this, and otherwise the individual is normal, the act is completed rapidly when the necessary quantity is supplied. It may be that the small doses act as adjuvants to aid the maternal secretion. The necessity for varied dosage probably depends largely on the amount of maternal extract present.

In this connection it is important to distinguish true inertia from exhaustion. Like other muscular tissues the uterus loses its tone, strength and contractile power after long-continued contractions. It finally acquires a state of exhaustion in which it is not even sensitive to

8. Lescohier and Closson: Jour. Michigan State Med. Soc., October, 1912.

9. Welz: Am. Jour. Obst., July, 1913.

stimuli, or only weakly so. At such a time rest will permit it to regain its former strength or nearly so. Then it will react to stimuli as it did before the state of exhaustion. In a practical way we should give an anodyne instead of a stimulant in this condition and permit the uterus to regain its strength before working again.

Case 2 illustrates this well. A primipara of 30 years had ruptured membranes hours before labor began. As the pelvis was normal and labor proceeded normally, though slowly, she was given morphia the first two nights. The failure of 3 c.c. of pituitrin to end labor on the third day was due to uterine exhaustion. Easy low forceps delivery was indicated, because of weak fetal heart and discolored amniotic fluid.

It is claimed that there is a greater liability to deep cervical lacerations. It is noteworthy that some whose dilatation was most rapid had no sign of any cervical laceration (Case 33). None of this series suffered from a cervical laceration sufficient to require immediate suture. There is an increased liability to laceration resulting from the rapid dilatation of a very rigid cervix. These uteri do not usually dilate very rapidly even after some stimulation. Those which are quite elastic seem to be able to dilate rapidly without injury to their integrity.

As these were all private cases I had opportunity to watch them carefully for signs of threatened uterine rupture. There were none of the ordinary signs of this condition such as tense round ligaments, thinning out of lower uterine segment, pain or tenderness along the lower lateral uterine walls. All pelves had been measured and examined previously to ascertain that there was no contraction or obstruction. There is a possibility of such an occurrence where there is a disproportion between the size of the fetus and the pelvis. It might occur from an obstruction or even because of a very rigid cervix, where the pituitrin causes excessively severe contractions. The possibility is remote, but should be kept in mind in order to be forehanded.

None of this series showed a sign of premature separation of the placenta as a result of the severe contractions. There is a possibility of this accident occurring after the exhibition of pituitrin, though I do not believe more so than in labor without it. The third stage resembles the ordinary third stage, the placenta taking about as long to become freed as in other cases. This indicates that the more violent contractions do not tend to loosen the placenta until the usual time after the fetus is expelled as in cases where no pituitrin is used. The amount of hemorrhage was about the same as in ordinary cases.

There was slight asphyxia in Cases 2 and 20. This I consider due to the prolonged labors and not to the use of pituitrin. Neither uteri was stimulated by the use of the extract. The feti were in bad condition from prolonged cerebral pressure, because of weak contractions. There was no death from asphyxia or even deep asphyxia. It is more dangerous to permit a condition of inertia to persist for a long period than to aid the expulsion in a natural way. The prolonged pressure is much more harmful to fetal head and maternal soft parts than the extract could be.

This extract has been recommended to control post-partum hemorrhage. This is not a rational procedure, because a tonic contraction is desired, and pituitrin causes intermittent contractions. Ergot cannot be displaced for its post-partum effect, because it produces the desired tonic contraction of the uterus. Pituitrin might be used as an adjuvant to ergot on account of its power to increase the muscle tonus of the uterus.

In seven cases of abortion or miscarriage pituitrin has been found to be of little service. In mid-term pregnancies where abortion is inevitable it will aid in the dilatation of the cervix and the expulsion of the products of conception. The drug has little effect on the uterus of early pregnancy, and none whatever in removing placental particles which remain attached to the uterine wall after the fetus has been expelled. Only mechanical separation can do this and then ergot is still the reliable drug to rely on for a continued contraction. Placenta and membranes which remain adherent to the uterus in premature labor cannot be removed by pituitrin either.

In the case (No. 24) of cesarotomy, 1 c.c. of pituitrin was given just before the operation to aid the action of ergot given at the same time by increasing the uterine muscle tonus.

CONCLUSIONS

Pituitrin is a powerful drug and care should be used in its administration. It should never be used until the accoucheur is familiar with his case and certain that no harm will result from its use. It is absolutely contra-indicated where there is a disproportion between the size of the fetus and that of the pelvis, or where there is an obstruction. Instead of pituitrin, rest is indicated where the uterus is exhausted. As the drug acts best toward the termination of labor, and only slightly at the beginning, the time to use it is when dilatation of the cervix is complete or

nearly so. Then the man in a hurry may use it instead of applying forceps as is too frequently done. The intelligent use of this extract at the proper time should displace the forceps very frequently. The result should be lower mortality and less morbidity among the new-born and mothers. It should lessen the suffering of mothers in numerous cases. Only when it is a rational procedure should it be used; it is senseless to inject it in every case. After the injection has been given, the physician should never leave his patient until labor is complete, for fear of precipitate labor; also, the case should be watched for possible trouble.

608 Mount Elliott Avenue.

CASES IN WHICH PITUITRIN WAS USED

PRIMIPARAE

Name	No.	Date	Dilatation of os ext.	Time from inj. to end* Hours	Hours in labor†	Remarks
Mrs. C. S.....	1	Feb. 23, '13	Complete	1/3	5½	
Mrs. F. N.....	2	Feb. 6, '13	2 cm.	26	75	Pelvis normal, age 30 years, parts inclastic.
Mrs. C. K.....	3	Feb. 2, '13	8 cm.	1 1/2	5½	
Mrs. M. P.....	4	Jan. 31, '13	8 cm.	1 1/6	7½	
Mrs. C. P.....	5	Feb. 6, '13	5 cm.	1 1/4	9	Breech extraction.
Mrs. K. H.....	6	Feb. 21, '13	6 cm.	2	7	
Mrs. M. H.....	7	Feb. 21, '13	Complete	1 1/6	5	
Mrs. J. W.....	8	Jan. 24, '13	6 cm.	4 1/3	12	Primipara thirty-four years.
Mrs. E. B.....	9	Jan. 18, '13	9 cm.	3	38	3 c.c. given.
Mrs. F. M.....	10	Feb. 12, '13	1 cm.	10	13	5 c.c. given, soft parts tense.
Mrs. C. B.....	11	Jan. 10, '13	7 cm.	2 1/4	8	
S. S.	12	Jan. 27, 13	5 cm.	6	11	Dry labor.
Mrs. W. T.....	13	Nov. 20, '12	5 cm.	6	13	
Mrs. J. S.....	14	Aug. 7, '12	4 cm.	5 1/2	10	
Mrs. A. H.....	15	July 10, '12	7 cm.	2	9	
Mrs. K. M.....	16	April 27, '12	3 cm.	3 1/2	12	
Mrs. S.....	17	Oct. 11, '12	4 cm.	2 1/2	11	
Mrs. B.....	18	Nov. 1, '12	8 cm.	1	21	Forceps. Weak fetal heart.
Mrs. C. S.....	19	March 25, '13	8 cm.	3	48	
E. L.	20	March 31, '13	3 cm	12	35	Forceps for weak fetal heart, 3 c.c. pituitrin.
Mrs. R. H.....	21	April 6, '13	4 cm.	3	26	
Mrs. F. A.....	22	April 17, '13	8 cm.	1 1/4	11½	
Mrs. A. S.....	23	April 25, '13	6 cm.	3/4	4¾	
Mrs. F. S.....	24	May 3, '13	Complete	1/2	11	Cesarotomy, true diagonal di—8-cm. rachitic pelvis.
Mrs. A. B.....	25	May 17, '13	6 cm.	6	11	
Mrs. F. H.....	26	May 25, '13	5 cm.	1 1/2	6	Macerated, 7½ months fetus; chronic nephritis.
Mrs. W. K.....	27	June 18, '13	3 cm.	3	3	
Mrs. J. L.....	28	June 24, '13	2 cm.	3 1/2	10	2 c.c.
Mrs. F. R.....	29	July 19, '13	6 cm.	2	26	Dry labor.
Mrs. C. S.....	30	June 21, '13	7 cm.	1	22	Dry labor: breech extraction.
Mrs. A. V.....	31	June 27, '13	5 cm.	1	25	Forceps for heat exhaustion.

* Average, 3.8 hours. †Average 17.1 hours.

MULTIPARAE

Name	No.	Date of Confinement	No. Labor	Dilatation of os ext.	Time from Inj. to End* Hours	Hours in labor†	Remarks
Mrs. J. A.....	32	Feb. 17, '13	2	5 cm.	1 1/2	8	Twelve hours for first child.
Mrs. L. S.....	33	Feb. 7, '13	2	1 cm.	1	2½	Twenty-nine hours for first child.
Mrs. Wm.. H.	34	Feb. 14, '12	3	7 cm.	1 1/6	3	Previous short labors.
Mrs. W.	35	Mar. 5, '12	3	6 cm.	1 1/2	6	Previous short labors.
Mrs. O. H.....	36	Nov. 1, '12	3	7 cm.	1 1/2	4	
Mrs. P. R.....	37	Dec. 29, '12	3	5 cm.	2	6	Previous labors easy.
Mrs. D.	38	Aug. 16, '12	2	4 cm.	2 1/2	7	
Mrs. C. M. ..	39	Dec. 9, '12	3	3 cm.	4	13	
Mrs. F. M. ..	40	June 19, '12	4	4 cm.	5	14	
Mrs. F.	41	July 15, '12	3	3 cm.	4 1/2	7	
Mrs. J. M. ..	42	July 22, '12	3	7 cm.	1/2	12	Premature 33-week child.
Mrs. E. W. ..	43	Jan. 19, '12	3	2 cm.	3/4	4	Previous labors, 48 and 24 hours.
Mrs. A. P. ..	44	Mar. 12, '13	2	7 cm.	1 1/4	4	
Mrs. J. B. ...	45	Mar. 31, '13	3	4 cm.	1 1/2	22	
Mrs. M. M. ..	46	May 19, '13	2	8 cm.	1	3	
Mrs. A. T. ..	47	July 8, '13	3	Complete dil.	1/4	12	Previously forceps after 40 and 32 hours.
Mrs. J. G. ..	48	July 9, '13	2	2 cm.	26	36	Dry labor, 4 c.c. pituitrin.
Mrs. E. C. ..	49	April 27, '13	2	6 cm.	1 1/4	13	

*Average 3.17 hours. †Average 9.8 hours.

EMERGENCY ABDOMINAL SURGERY IN THE PRACTICE OF THE COUNTRY PRACTITIONER *

EDWARD SAWBRIDGE, M.D.
STEPHENSON, MICH.

Appreciating very highly the honor which you have bestowed on me in having elected me President of the Upper Peninsula Medical Society, I have taken the liberty of addressing you on a subject which I feel is very close to all of you and at the same time altogether timely.

Above one of the entrance doors of one of the greatest institutes of physiology of international reputation are written the words, "Nobody enter this institute without perfect knowledge of higher mathematics." Similar to this I believe that every patient demanding abdominal surgery ought to have, in our days, a plate on his abdomen with the inscription, "Without perfect knowledge of all phases of abdominal surgery nobody enters this abdomen."

Taking it for granted that very few physicians in general practice can fulfil the above requirements of abdominal surgery, we must, on the other hand, take into consideration that the practitioner in country practice is called on very often to act promptly and energetically in cases which I would like to call cases of emergency abdominal surgery. Such as for instance, beginning general peritonitis from perforation of the appendix, perforation of a gastric or duodenal ulcer, perforation following typhoid fever, trauma (such as a kick by a horse or gunshot wound of abdomen), general peritonitis following septic abortion or confinement, incarcerated hernia, extra-uterine pregnancy, pregnancy with eclampsia, pregnancy connected with contracted pelvis, etc. All cases which, as you know, demand immediate surgery of the best kind. Some of these cases, as for instance, ruptured extra-uterine pregnancy, where there is free hemorrhage going on without the formation of a hematocele, are in such a deathly state of sickness that the idea of transporting the patient to a nearby hospital cannot be taken into consideration, and in other cases, such as beginning general peritonitis from perforation of the intestines, it cannot be denied that the transport to a hospital must necessarily spread the existing inflammation and thereby be a detriment to our patient. Some of these patients after a transport over a long country road, arrive in such a miserable state at the hospital; hastened by such transport the case is absolutely hopeless. This is quite avoidable at the present time. There can now be found a surgeon within reachable distance of almost every place armed with modern equipment and prepared to do surgery anywhere. With the steady improvement of highways and the use of automobiles the radius of territory for surgical home attendance is widening. The time can never come when human beings ill with acute appendicitis and strangulated hernia or intestinal gun-shot wound can be shipped to city hospitals to better advantage than they can be cared for by reasonable skill and house conditions at home.

Having the above facts before us and for the purpose of doing justice to our patients, it has been my practice within the past ten years to have all those cases operated on in their private homes by an expert surgeon; the results achieved by this practice, which I would like to lay before you to-day, are not only equal to any hospital record, but I believe that many a patient's life has been saved, who, if he or she had been transported, would have succumbed. All cases of beginning peritonitis originating from acute appendicitis were operated on at the earliest possible moment. Whether it was twenty-four hours after the onset or seventy-two hours, three days or four days, did not play any figure whatsoever. In other words, the so-called Ochsner treatment has never existed for us, because no man can tell what course a beginning peritonitis will take if not operated on promptly. In all cases, wherever feasible, the appendix was removed and only in cases of abscess where its removal would have produced too much traumatic injury to the adjacent bowels, the abscess was drained and the removal of the appendix left for a subsequent operation, if such proved necessary.

AUTHOR'S CASES

There were forty-four pus patients operated on with only two deaths. One of the patients that died was seen the first day she was taken sick, and an operation advised which was refused; on the fourth day the parents requested an operation, which was performed, but she died the next day. The other patient that died was operated on the fifth day; both were cases of general peritonitis. There were three patients operated on during pregnancy; one at the third month, one at the fourth and one at the sixth month; pregnancy was uninterrupted. Among our cases was one of general peritonitis following septic abortion, with pulse 130, constant vomiting without effort and a case almost in *extremis*. After rapidly opening the abdomen the uterus and

* President's Annual Address, Upper Peninsula Medical Association Nineteenth Annual Meeting, Ishpeming, Aug. 6, 1913.

tubes covered with diphtheria-like membrane were wrapped in iodoform gauze, and the abdomen, filled with pus exudate, drained. The patient recovered.

There was an interesting case of ruptured extra-uterine pregnancy in the fourth month together with an intra-uterine pregnancy of the same month. The patient was operated on at two o'clock at night, the abdomen was found filled with blood and the extra-uterine pregnancy removed. The intra-uterine pregnancy aborted three weeks after the patient was able to be up and around.

In one case of ruptured extra-uterine pregnancy—in a very primitive farm-house where it was impossible to obtain a suitable Trendelenburg position by fastening a chair to a table (which we usually use in cases where such a position is required)—the husband was used for such purpose. By throwing the legs of his wife over his shoulders in such a manner that the pelvis was lying on his neck, an excellent Trendelenburg position was achieved.

There was one case of perforation from gastric ulcer followed by general peritonitis, and one perforation of duodenal ulcer with beginning peritonitis. The first one, a girl 19 years of age, operated on four days after perforation, but the peritonitis had already gained such headway that she died five days after the operation. The perforated duodenal ulcer was operated on twenty-six hours after perforation and recovered. I saw this case three weeks before in consultation and a diagnosis of infected gall-bladder was made, as the pain by pressure was directly opposite the eighth rib on the right side. The pain after perforation was so severe that it could not be controlled by hypodermics of morphin and chloroform had to be resorted to. The operation was performed at eleven o'clock at night and the abdomen drained with five gauze drains.

Among cases of incarcerated hernia was one case of incarcerated femoral hernia, where the greater part of the omentum had to be removed, and a hernio-laparotomy had to be performed for the purpose of not overlooking an internal strangulation; the patient recovered. In one case of strangulated hernia in an old man whose condition was such that an anesthetic could not be given, the operation was successfully performed under local anesthesia. In another case operated on eight days after the onset of the strangulation (the delay being caused by the patient himself, who was a Scientist), the bowel was found to be gangrenous and an artificial anus was established. Three weeks later, in the same farm-house, two feet of bowel matted together in one bunch was resected and the ends united by end to end anastomosis. The patient recovered and went to work eight weeks after the operation, somewhat against my will; was struck by a log the first day of his work and sustained a fracture of the pelvis, for which my friend, Dr. Landsborough, treated him, and from which he is now recovering. One case of ileocecal invagination produced by a tumor in a man 50 years of age was observed. At the time of operation general peritonitis had already progressed very far and the patient was in a moribund condition. The man died three hours after operation and possibly no operation should have been performed, as the case was hopeless; but it was our principle that an operation should not be refused any patient as long as there is life and the slightest ray of hope.

There was one interesting case of pregnancy in a contracted pelvis in a dwarf. The contraction of the pelvis was such that only Cesarean section could save the life of the patient. The operation was performed at twelve o'clock at night. After opening the abdomen it was found that there was another interesting congenital anomaly present in our patient, namely, that we had to deal with a pregnancy in a uterus-unicornis, only the tube and ovary on right side being present, while these organs were entirely lacking on the left side. The uterus was opened by a transverse incision through the fundus. The patient made an uninterrupted recovery and both mother and child are well to-day.

There was one case of gun-shot wound of the intestines in a boy 12 years old, who was shot with number five bird shot. There were marks of between fifty and sixty shot, which had entered the buttock; we did not think at first that they had penetrated the abdomen. Later symptoms of peritonitis developed and it was decided to open the abdomen. We found seven perforations of the bowel caused by two of the shot which we found had passed through the ilium causing the perforations. The boy made an excellent recovery.

CONCLUSION

At the end of my paper I once again desire to reiterate: Such excellent results of emergency abdominal surgery could only be achieved by the fact that an expert surgeon performed these operations at the earliest possible moment, within the homes of the patients afflicted, and in doing so we acted according to the principle of the old established law—"*Salus patientis suprema lex medici et chirurgi esto* (the welfare of our patients must be the first law for the actions of the physician and surgeon)."

SYPHILIS, WITH ESPECIAL REFERENCE TO "606" *

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In 1909, Ehrlich, after much experimenting and study, discovered salvarsan — an arsenical compound, a yellow acid powder, easily oxidized to poisonous compounds and peculiarly destructive to the germs of syphilis. It was at first supposed that one or two injections of "606" would cure any case of syphilis. It is now known that such is not the case.

Regarding the virtues of "606" in the cure of syphilis, a great difference of opinion exists. Frank Billings said in June, 1911, "The results from the use of '606' have not been as good as from the use of mercury in my hands." Pusey states, "We may say positively and finally that '606' does not cure syphilis in any more cases than mercury does."

Hundreds of clever scientific and very reliable medical men are to-day claiming marvelous results from the use of salvarsan in cases where mercury was not well tolerated or had utterly failed.

Schaudinn and Hoffmann, in 1905, demonstrated the *Spirochaeta pallida* in syphilic lesions. These germs are best found in the early stages of syphilis and are present in about three-fourths of the smears taken from chancres, moist papules and mouth lesions. The chances for finding these germs diminish as the secondary symptoms develop. The organism when found and freshly mounted under the microscope can be seen to move. It is a living germ.

Good authorities claim that the finding of this germ by a competent diagnostician in a suspicious sore warrants the commencement of antisyphilitic treatment. Some authorities go so far as to say that with this very early diagnosis and prompt treatment with salvarsan, we may prevent the secondary symptoms from ever appearing. In other words, we practically abort the disease.

With the disappearance of the chancre and the primary or initial stage of syphilis, the finding of the syphilitic germs becomes more difficult, but fortunately for science, we can, after this stage has passed, resort to the Wassermann test. Wassermann, in 1906, discovered a serum reaction peculiar to syphilis. The Wassermann serum test is a difficult one to make. A positive Wassermann cannot be obtained, as a rule, until the primary sore has appeared and frequently not until the secondary symptoms have developed.

There are a number of unfortunate truths about the Wassermann test. Positive Wassermann reactions are obtained in leprosy, general paralysis of the insane, congenital mental deficiency, relapsing fever, general paralysis, after veronal, morphin, scopolamin and ether narcosis and just before death.

There are great chances of mistakes in making the test. Yet, a positive Wassermann found by a competent demonstrator must be the means of frequently assisting in making a diagnosis or confirming a doubtful one. When found, it often proves that a certain skin lesion, a certain sore throat, or an unusual symptom of pain in any part of the body is syphilitic in origin.

Because of the possibility of mistakes in the laboratory diagnosis of syphilis, it is prudent to have other reasonable grounds for suspicion before beginning with any antisyphilitic treatment. Failure to carefully consider the clinical symptoms, together with too much confidence in the Wassermann test, or other laboratory findings in the diagnosis of syphilis, must mean that occasionally patients will be subjected to antiluetic treatment who have never had syphilis. At the same time, I believe that the laboratory findings in the search for syphilis are almost as certain and of fully as great value to us as the laboratory findings in typhoid, diphtheria or tuberculosis.

THE INDICATIONS FOR CAUTION

In what cases should we use special caution in the use of "606"?

(a) Infants with hereditary syphilis, better depend on mercury.

(b) In severe cerebral disease, cardiac affections, low cachectic conditions—as diabetes—and in severe arteriosclerosis, use mercury; and if mercury fails, feel your way carefully with salvarsan.

(c) In early malignant syphilis, cerebral hemorrhage, gastric ulcer and in very old people, go carefully with salvarsan treatments.

IN WHAT CASES IS SALVARSAN POINTEDLY INDICATED?

(a) In cases of syphilis diagnosed very early.

(b) In the treatment of patients who cannot take large enough doses of mercury to control the symptoms.

(c) When the disease progresses in spite of other methods of treatment.

(d) When rapid disappearance of skin and mucous membrane lesions is particularly desirable.

* Read before the Ottawa County Medical Society, March 11, 1913.

METHOD OF ADMINISTRATION

The majority of authors seem to prefer the intravenous method, yet many think the intramuscular method quite as effective, if not more so. Salvarsan would be used intramuscularly much more often but for the severe pain it produces when so administered and because of its liability to cause an abscess at the site of injection. Salvarsan as an intramuscular injection will probably give way to neosalvarsan, because the latter is very much less painful.

No very expensive apparatus is necessary in giving salvarsan intravenously. Select a prominent vein, say, for instance, the basilic or cephalic at the elbow. Make the vein prominent by pressure and plunge the needle directly into it. If the vein cannot be easily found in this way, cut down on it and then pierce with a needle, about a seventeen gauge. Any needle large enough to allow eight ounces of water to flow through it in five or ten minutes will do.

A small glass-barreled syringe with the piston removed and which connects easily with the needle by being pushed into it, is connected with 5 or 6 feet of rubber tubing, at the other end of which a glass funnel is attached. If the needle goes into the vein, blood will drop from it. Have the funnel filled with normal salt solution, which will run down the tubing and escape through the small barreled syringe at the other end. While the blood escapes from the vein through the needle and normal salt solution flows from the syringe, connect the two. In this way no air finds entrance to the vein. Keep the funnel filled with salvarsan solution until all has entered the vein, except that which is in the last two or three feet of tubing. By beginning with the normal salt solution and finishing with the same, no salvarsan is wasted, and by inserting a small glass tube two feet from the needle, it can be easily seen when the injection is completed. Be surgically clean.

Before giving "606" examine the patient for contra-indications, taking the blood-pressure. Give a cathartic the night before, and have him remain in bed a couple of days after receiving the treatment. Usually but little pain will be experienced, unless some of the solution has escaped into the tissues at the point of injection.

Following an injection of salvarsan there may be nausea, diarrhea, headache, chills, fever from 101 to 103 degrees, etc. These symptoms are usually slight and soon disappear.

Sutton of Kansas City states, "During the past twelve months I have seen four cases of hemorrhagic encephalitis, three of these were men who presented no other evidence of disease except syphilis, yet they died in from two to ten days." It may be possible that in these fatal cases the previous examinations were not made with sufficient care, and through this neglect salvarsan was administered in doses too large for these special cases.

Many medical men are to-day making use of both salvarsan and mercury in their every-day cases of syphilis. The two treatments appear to work well together and many believe the combination gives more rapid and more permanent results.

REPORT OF CASE

A patient came to me complaining of pains which I diagnosed as rheumatic. Ten days later she complained of vaginitis. Syphilis or gonorrhea in this case seemed impossible, but in less than a month the diagnosis of syphilis could not be questioned. She was put on increasing doses of mercury for fifteen days, and becoming dissatisfied with my treatment, she decided to go to her former family physician. He treated her for more than four years. I believe she followed his instructions carefully, and that he was a physician of considerably more than ordinary ability in the treatment of such cases. He gave mercury at first by inunctions, later by the stomach, and as the disease progressed he gave treatments of potassium iodid. The patient responded poorly to treatment and after an absence of a little more than four years, she again returned to me. There were several deep ulcers in the hard palate and in the alveolar processes. Her headaches and head pains were almost unbearable and she had much coryza. Her blood-pressure, pupils and reflexes were, however, practically normal. I tried in vain to relieve her. Cacodylate of soda in 3-grain doses was repeated twenty times hypodermatically. Mercury and enesol were given in the same way in liberal doses. Potassium iodid was faithfully tried in large doses.

Patient again returned to her old family physician, who found her coryza so great that he thought I had overdosed her with potassium iodid. She was sent to the hospital and salvarsan was injected deeply into the muscles of her back. The relief was wonderful and rapid. In less than a week's time she felt that she was cured. The ulcerations in her nose and mouth were almost healed; the coryza and headache were gone.

Six weeks later her old symptoms had reappeared and salvarsan was again given intramuscularly, but with rather less and shorter relief than previously. In two months she appeared to

be as bad as ever and again sought relief from me. I decided to try salvarsan intravenously. Her veins were so poorly defined that I failed three times to pierce the right basilic, but succeeded, or thought I had succeeded, in getting into the right cephalic. The injection was painful during its administration, but as the fluid seemed to disappear freely, I continued. In from fifteen to twenty minutes the arm from the middle of the forearm to the axilla had increased in circumference from one to two inches and her pains were very severe. Four hours later her hands were cold, temperature 100, pulse 70, pains very acute. At the end of two days the arm was still two and one-half inches larger than normal in circumference, but the pain was lessening. The arm remained swollen, hard and edematous for several weeks. Evidently a part of the salvarsan had escaped into the tissues outside the vein.

Hypodermatic doses of mercury in large doses were again given. Her condition continued good until five months later, when I again gave salvarsan intravenously. Being unable to make any of her veins prominent, I cut down on the basilic and found that under pressure it was only about the diameter of a match. No pain followed this injection, but there was fever, nausea and purging as before. Mercury was again commenced hypodermatically and three months later salvarsan was repeated intravenously.

I fully believe that this patient would have died months ago but for "606." The relief it gave was simply wonderful. The ulcerations in the nose and mouth are not completely well, but are very much improved; there is still some slight headache at times, but the patient eats and sleeps well and is able to do the hardest kinds of work. She has had five salvarsan injections inside of one year and is at present using inunctions of mercury.

In this case mercury failed to even check the disease, although faithfully tried and in various preparations by the mouth, by inunction and hypodermatically. Potassium iodid, enesol and cacodylate of soda proved to be utterly worthless here, yet every dose of salvarsan gave quick and astonishing results.

Salvarsan, neosalvarsan or some similar preparation will, I believe, in the near future and when better understood, be universally regarded as one of the great remedies in the treatment of syphilis.

THE COUNTRY PROBATIONER *

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It is rather embarrassing to be obliged at the very outset to admit that the young probationer whom I shall picture is in no way an author's portrait of the author. He is rather that saddest of individuals, "He-might-have-been" as the author after a city perspective of five years is able to see him. And yet not quite that. I shall take one of the better type of men whom our schools graduate; eager, energetic, and not without some wisdom or a considerable cargo of facts. You have all known him. He is of the best we have; and I have chosen him as the vehicle of these observations because in the discovery of opportunities, only the best is valuable. It is of the country as an opportunity that I wish to speak.

Then again, perhaps, I shall be too often tempted to a comparison of the country versus city; yet this is not so much my intention as to establish a thorough conception of the rural location—its advantages, its dangers, and its rewards.

In every large city there are a number of men who have enjoyed a country probation. They are not men who have started in small towns of from 8,000 to 10,000. These seldom move on; they have hospitals, nurses and the best of livings. Rather do I speak of those who have begun practice in villages of from 300 to 2,500, and I take as my example the community of not more than 1,500 as the possible country location for our young man.

I am not interested in expounding the country as a permanent location. It has been done well and sufficiently. It is my desire to present the rural beginning only as a valuable experience, a point of view in addition, rather than as fixed bias. I had best explain, too, that while having been reared in such a community as the one mentioned may discount some of the value of the later experience, yet the commonplace position of the minor in a community and the unique position of the physician in the community is separated by four to six years, at the least, of unique experience in the essentially cosmopolitan and metropolitan atmosphere of the college and hospital; so that I sometimes think that the returning prodigal has as much to learn and less disposition to learn it than the city-bred man.

Moreover, from the standpoint of the public I am convinced that the small community needs the young man. Not only does it furnish him with a valuable opportunity, but the young man fresh from a good training is *the* opportunity for most small communities. A former president of the Michigan State Grange, who lives in a rural township, once said of his own family problem: "We have a new doctor in our neighborhood about every three or four years, and we are glad of it. In that way we get some very good men hot off the frying-pan." He realized that in most very small communities this was the best that could be expected—a few short years of an ambitious and capable man's life. This if course does not imply that all men who spend a short time in the country and then move on are superior. It simply offers the chance, which this shrewd farmer was able to see. The country needs the young man and the young man needs the

* Read before the Detroit Academy of Medicine, November, 1912.

country; at least I am of the opinion that some of them do.

One frequently sees men of ability, whose future in a city practice depends on the exercise of certain faculties which can be developed or restrained more easily, unconsciously and effectually by the direct methods of the country. I only wish the country probationer might take up his work with a full appreciation of his opportunity, and the ultimate advantage in its severe methods. I believe the profession has a very indifferent conception of the breadth of the rural experience. One too frequently hears the superior country doctor spoken of as if he were superior in spite of the country. I believe that this may always be said of the city as well.

I am asking you, therefore, to consider for a few minutes some of the developmental conditions which confront the young man who drops off a local train at a village stop in Michigan, for instance, a good training in his head, a fair equipment, a desire to succeed in the best sense, and last, but not least, a little wisdom.

To judge of results and methods, one must first have a clear idea of what is desired of the young practitioner beyond those acquirements already mentioned; and from the various addresses to graduating classes in medicine, it is apparent that the profession agrees pretty well as to aims. Dr. Osler always puts things in a telling way and I quote from one of his address to the budding profession:

"In the first place," he declares, "in the physician or surgeon no quality takes rank with imperturbability." "Imperturbability" he defines as a bodily virtue expressing coolness, presence of mind under all circumstances, clearness of judgment in moments of grave peril, immobility, impassiveness, phlegm." "In its full development," he affirms, "it has the nature of a divine gift, a blessing to the possessor, a comfort to all who come in contact with it. Educate your nerve centers," he continues. "Cultivate such a judicious measure of obtuseness as will enable you to meet the exigencies of practice with firmness and courage, without at the same time hardening the human heart by which we live."

"In the second place," continues Dr. Osler, "there is the mental equivalent of this bodily endowment—equanimity. Natural temperament has much to do with its development, but a clear knowledge of our relation to our fellow creatures and the work of life is indispensable. One of the first essentials is not to expect too much of the people among whom you dwell."

With these theories in mind, I shall endeavor to explain my conviction that any country practice will develop "imperturbability" in less time and with less danger of hardening the human heart than the usual city practice, and that the development of mental equanimity through a clear knowledge of our fellow creatures and the work of life is the certain reward of the country practitioner.

But this is not all. In another address says Dr. Osler: "Let us talk of the influences which may make you good students, now and during your practice. In the first place, acquire early the 'Art of Detachment,' by which I mean the faculty of isolating yourselves from the pursuits and pleasures incident to youth. Of special importance is this gift to the young man who resides for the first time in a large city, the many attractions of which offer a serious obstacle to this acquisition."

It is my pleasure to believe on my part, that as here intimated the "Art of Detachment" is nowhere so easily cultivated as a permanent and grateful state of mind as in the country.

"In the second place," continues the doctor, "cultivate the virtue of method." Of this I shall also speak.

"In the third place, develop the quality of thoroughness." "Thoroughness," he explains, "means the knowledge of the fundamental sciences, chemistry, anatomy and physiology, not a smattering, but a full and deep acquaintance, not with all the facts—that is impossible—but with the great principles based on them. You should as students reach in these three essential studies a degree of accuracy which is the true preparation for your life studies." I shall attempt to show that nowhere is the young man brought more face to face with his fundamentals, made more thoroughly aware of their paramount value, than in the isolation of a rural practice.

"And lastly," says Dr. Osler, "the grace of humility." Personally I believe, and I shall try to explain, that this is a most subtle influence of rural life; that to begin one's labors in a country community will cultivate in a man *capable* of humility the very *essence* of humility, especially if he is city bred.

But withal, I must again remind you that as in all opportunities the result is dependent on the ability of the individual to react to his opportunities; and his ability in this direction is the sum of his natural gifts and their thorough cultivation. When I speak of the country as the man's opportunity, I speak of it always with Dr. Osler's own qualification, "if he has it in him."

Now let me take you to the country, not as a summer boarder, not as a consultant, but as the young man I have just described; well prepared, zealous, with fresh enthusiasm as you were the day you took up private practice. Let us say that the village is fifty miles from a medical center of any size. The train stops; you take up your luggage and emerge. Hardly does one set foot on the little platform before one begins to cultivate "imperturbability," "equanimity," the "art of detachment," and the "grace of humility" no less. The village wags eling to the lea side of every railway station and they are not speechless. If you have a leaning toward tan shoes and red neckties, you soon discard them as non-essentials.

One fact must be kept constantly in mind: the rural system of education is one of direct methods; always direct, always uncompromising. When you can contemplate the human relation as it exists between physician and public, in that light you are prepared to view the country doctor's experience with an understanding not at all possible otherwise.

And now our young aspirant moves round the station. That stretch of landscape is no field of white beds with nurses and doctors for landmarks; rather it is a small cluster of enigmatical human shelters and waste spaces. One's first sensation is that of utter aloofness, loneliness and superfluity. Equanimity wins or loses a point here, according to the man.

But this system of direct shocks and an open field has its advantages. There is a miracle over night. Ten miles along every pike road his name has traveled. Everybody in and far beyond that wide horizon

knows that a new doctor has come to town. By the next night they know that he has taken offices over the bank, and by the next night he will have a clientele, a small one of incurables perhaps, but a clientele no less. This is not an extravagant statement; I could prove it if it were necessary. There *are* fields which are so abundant in material that they are dangerous places for the young man, but these are not common. The real cause for the immediate employment is the ease with which the few who do need the new physician have learned of his advent.

Now, after three days let us take stock of our young man again. He still has twenty-four hours in his day; he still has his natural abilities, his training and he has added, say, two chronic cases. His office is new, his equipment is new, and these constitute not only his workshop but his home in ninety-nine cases out of a hundred. His reputation is a clean slate. He has made no friends to amuse him, and there are no billboards to lure him. His only connections with his world at that time are the two cases. I ask you what he is going to do? There can be no doubt about it; he is going to work with a relish. The art of detachment which Dr. Osler emphasizes for the city man gives place in the country to the habit of attachment; not a negative virtue, but a positive necessity. Our young man is going to work. On the one hand is the patient, victim of many nostrums; on the other hand are those saving books, those new tools; and between them himself, his hands and the store of their knowledge. Beyond these four walls there is nothing; no intimate, jostling world, no professional peers in the offing, waiting to support him and protect him. Indeed, he is alone; closeted with an opportunity. This is a very effective way of achieving the "Art of Detachment."

There is probably nothing more difficult to accomplish in the practice of general medicine than method. I am speaking now of system in the management of one's day, one's accounts, etc. The country will not assist a man in this more than the city, perhaps less. One's time is borrowed in large chunks for long drives, whose times and seasons cannot be controlled. Office hours are hard to keep, but they may be observed to a considerable extent if one appreciates the value of divided time and its chances for improvement. As to the other phase of method, that which bears on the observation of patients and the treatment of them, I can only say, and I believe that the conclusion is the general opinion and experience of the profession, that Science with a capital "S" is a first love. A man is either bound or free when he leaves his college and hospital training, according to his own temper and abilities, plus the scientific impress of his training, through the spirit and devotion of his instructors. If he leaves the companionship and leadership of scientific men with a fair appreciation of the relationship of the fundamental sciences to his art as an interpretation, he is bound for all time; but if he begins private practice without this any later alliance is usually a superficial expediency. I should say that the young man who goes into the country with a clear appreciation of scientific method will emerge with but a stronger faith in it. Everything in the country as well as the city is possible to the man who starts with a system which makes it possible for him to classify his results. A more comprehensive training in diagnostics than the good village practice affords cannot be found anywhere; and there is the time and the seclusion necessary. But much depends on the young man's attitude at this period. Your *futile* personality will be irked by the unfamiliar loneliness and isolation, and will allow itself to deplore the peculiar conditions limiting the effectiveness of his results, also the scarcity of material for observation. *He* is no man for this opportunity. But the wise, ready man will scarcely be conscious of his handicaps, sensing only the opportunities before him. He will enter on his lonely beginnings with the zest of adventure and the relish for work which individual, unaided achievement always arouses. In but a few days he will feel at home in his office, in the humble companionship of his base burner and his books, and will begin to feel the subtle presence of his neighborhood, its habits and thought.

And now as to "Thoroughness." Dr. Osler has described it as a full and deep acquaintance with the fundamental sciences on which our art is based. Again this fulness and depth depends: first, on the young man; second, on his education; and third, on the further illumination of his later experience. It is possible that even the first-rate intellect may sometimes suffer from indigestion, where the fare is too high and the opportunities to try this and that are unlimited. After all, one's procedure is effectual in direct relation to the clearness with which one discovers fundamentals through the mass of incidentals. This fact is soon forced on even the *half* observing country practitioner. He finds that his fundamentals are his salvation. For, though he will have many unexpected facts to conform to line, being alone, and without the hope of advice from the more "well-conned" of his profession, he will begin to pin his faith more and more to his fundamentals. In a small, diverse clinic with no consulting colleagues, he will learn that a great deal of special case literature is beside the point for him, dangerous to his clearest vision, until he has developed a technic which is daily more responsible to a fuller acquaintance with the fundamentals of chemistry, anatomy and physiology.

There is another special phase of the rural point of view which bears on this recognition of fundamentals, and which I shall now take up under that mental quality—"equanimity."

Mr. Kipling, in his "Conversion of Aurelian McGoggin," makes the following observations regarding city versus country life on one's grasp of fundamentals. He says of Aurelian in his clear pictorial style:

"I do not say a word against his creed. It was made up in a town where there was nothing but machinery and asphalt and buildings all shut in by fog. Naturally a man grows to think that there is no one higher than himself and that the metropolitan board of works made everything. But in this country where you really see humanity—raw, brown, naked humanity—with nothing between it and the blazing sky and only the used-up overhandled earth under foot, the notion somehow dies away, and most folk come back to simpler theories." . . . "At home," he goes on—meaning England—"men are to be excused. They are stalled up a good deal and get intellectually 'beany.'" Now, I do not mean to imply that all city practitioners are intellectually "beany"; I only wish to say that it is a possibility in the city and almost an utter impossibility in the country. By Mr. Kipling's use of the word "beany" I gather that he intends

to imply that being stalled up, as it were, in a steel-concrete, fireproof building has its dangers. Such a man may acquire a great deal too much faith in himself and institutions and may grow to think of himself as a very particular institute. He may feel justified for great faith in himself because he has great faith in the institutions which made him, and he knows that the public accepts much the same easy persuasion. But, perhaps most precarious of all to the young man, is the steel-concrete, twelfth-story view of life. Metaphors are dangerous things, but I make bold to employ this one. It takes a peculiarly long-sighted man to supply the advantage of a ground-level practice at the beginning. There is something naked, "able-to-stand-alone" about a practice which admits of consultation at the end of a plow furrow and must employ scientific principles as best it may, without the marvelous artifices of science. There is something wonderfully direct and to the point about one's mental processes under the influence of a wide horizon; at least those persons who seem to have had the greatest success in this line have always said so.

Let us see, then, just how these conditions bear on Dr. Osler's recommendations. He says that "equanimity" is largely dependent on a clear knowledge of our relation to our fellow-men and the work of life. A clear knowledge presupposes a firm grasp of fundamentals in the human relation as elsewhere; and the human relation, as observed in the country, has all the advantages of a close range and a small field. The man of more or less lively observation, who consciously watches the flow of another's thought or the trend of a community's mind, must find the country as the astronomer finds the clear night. It is a mistake to speak of such experience as observing human nature in the rough. It is rather observing human nature at a comprehensive range and in intimate association. It is living *in*, as well as ministering *to*, one's clientele.

Can you imagine for an instant what kind of training in equanimity is thus forced on the young man? Just one of the things that he learns is that it is wise to keep his affairs and the affairs of others to himself. If he had taken Mrs. Jones to the four corners to paint her back with iodine, the populace could not be better informed as to just the area decorated. Whatever one's experience with individual cases, country doctors as a class are perforce close-mouthed. Even the little harmless things which one hears slip out of the city doctor's experience are unknown in the country. One may throw a burning match into Woodward avenue with impunity, but not into dry grass and underbrush. The personal danger is about equal. It has driven more than one man from his field. The habit of silence concerning one's work is a valuable habit anywhere; in the country it is positively remunerative, which is a great incentive to its formation. It is, moreover, an excellent beginning in "equanimity."

Such publicity not only teaches him to keep his own peace but it will train him to act according to the dictates of his own intelligence and conscience, with the cries of the multitude in his ears. Nobody will save his ears. In consultation he will be obliged to sit patiently while the patient relieves himself of the town talk about his evil ways and evident failures. Now and then the gossip is flattering and more agreeable, but the country is not given much to flattery. This sort of thing has a very healthy effect on the timid, puttering conscience with which so many exceedingly good young men start out. I might almost interpret Dr. Osler's "Equanimity" as a forthright conscience; one which has ceased its juvenile mutterings and speaks with unconscious authority. There are many phases of country practice which develop this and the very catholic nature of one's public is one of them. One's conscience may not always go hand in hand with wisdom, but at least it gets good practice in public performance and unshiftable responsibility. I shall not take time to argue the point, but I can assure you that the country is certainly not more gullible than the city, and there is much less chance for the unscrupulous man to hide himself in the intellectual limitations of a class or neighborhood. Everybody knows him in the country, and also knows all of his patients, rich and poor, wise and foolish, and how he treats them. But, as you without doubt realize, the most significant fact in this connection is that the young man has no one to whom he may turn in the hour when his conscience begins to shirk. There are no consultants within reach of many of his most urgent demands; he may have only himself to blame; only his own judgment for appeal. I say the young man in the country must meet and grapple with these situations early and strenuously, if he has a disposition to succeed on his merits; and he will do it with "equanimity" or not at all.

And now what of "imperturbability"—that immediate and saving grace? We are warned that we must cultivate our nerve centers and *that* without hardening the human heart by which we live. A country clinic is a very entertaining clinic. It has all the spice of adventure. One comes back to the office from one section of the country and finds an almost undecipherable scrawl on the slate, bidding him come somewhere, ten, fifteen miles into the wilds. Every mile is one mile farther from assistance, save from his own mind and the few instruments which he may carry with him. He may find anything from a well-developed case of a contagious or infectious nature to a serious injury. He may be called on speedily to do any small petty thing or work of such grave significance as only the specially trained man has any license to do in the city. Of course, all general practitioners have more or less of this; but the city man knows where to get trained help and advice on short notice; for the man in the country, there is no such alternative. If he is fresh from a good training he is likely the best man in sight and soon knows it. But he need not become vain about it. The country will not put up with vanity in any form. At all times he must comport himself with respect to everybody and yet take all the mental and moral responsibility. There are not even efficient nurses. More than that, people in the country avoid a doctor until the last minute. It is the customary thing to arrive in the middle of the third act when the action is critical and everybody is over-excited. This does not give much time to professional perturbation. The most timid greenhorn will forget the audience, forget everything save the work before him. By sheer necessity of assuming all the responsibility he will automatically submit his behavior to the best of his mental perceptions and dictations. I do not mean to say that these things do not happen in the city; I only mean to say that they do not happen so often and there are a thousand more ways to turn. Repetition of such situations soon diminishes one's self-consciousness and develops one's nerve centers. The young man's first

thought when he finds himself for the first time, ten miles in the country and confronted with a critical, more or less blind case, is: "Oh for my books." His next is to get himself together without them. I believe the pedagogues say, make all pupils rise to their feet before the question is put; they will give a much better percentage of recitation. That is what happens here. The question cannot be passed on while the young man sits in his seat and shakes his head. His name was called: he got up before he knew the question; and through sheer necessity he begins to remember. I think most men will admit that they can remember much more than they give themselves credit for, when they find themselves in a tight place. The country doctor is, relatively speaking, always in a tight place. He must call up memories of facts, pictures, sounds, odors, sensations of all kinds, with rapid precision; accept, discard in his own intellect, without assistance, without advice. Also, he must gather his histories carefully, in explicit language. He must take nothing for granted. The country patient is notoriously non-committal. And lastly he must act. A great deal depends on mere mechanical ingenunity. Conditions are often of the worst and facilities the most meager. There are no perfection sterilizers. There are only the simplest devices for housekeeping, if there are those. The city hovel gives way most often to the well-appointed hospital. To find oneself in a log hut, the wheat crop in one corner, the patient in another—poulticed with cow-manure or warm chicken entrails—lying on a dirty bed, and attended only by a family of seven who speak exclusively Bohemian—that is quite another matter, I assure you. I have chosen a rather extreme case, I admit; but I could vouch for the truth of it and the unlimited variety of possibilities. If this sort of thing will not develop imperturbability, it must surely develop patience and teach one not to expect too much of the people among whom one lives. As Dr. Osler says, this should be one of our first lessons. It takes unbounded patience for a man with a scientific training to practice his art under such conditions.

And what of that other warning that we must acquire "imperturbability," "equanimity," and all that they imply, "without hardening the human heart by which we live"? By this I gather that our worthy mentor intends that this shall be done without numbing one's moral sensibilities or losing the gift of affection. Is there any question that both one's moral sensibilities and one's affections are more largely dependent on clear understanding of the individual or the community than on any other quality, save innate greatness? It takes a great mind, certainly, and a great heart to grasp and feel keen, moral responsibilities and human affection for the patient who reaches out a hand to him across an abyss of unknown experiences, interests, ambitions and limitations. And this is the common condition of a city practice. But what does the country doctor know of his patients? Everything, almost without being told. They are neighbors, friends. He knows them as they are, and as they would like to be. I believe this hastens much the young man's conception of his "relation to his fellow-men and the work of life"; adds much to his sincerity and absorption in his service. Nobody learns so quickly as the observing young country doctor, that there can never be two men, the man *and* the doctor, but only one man *in* the doctor. Personally, I believe that every man who comes to the city from the country would tell you that this intimate understanding of one's community, which keeps up the tone of one's moral responsibilities and breadth of one's affections, is the very crest of the rural experience. The scope of this experience is simply indescribable to the city man. *He* may know the secrets of many a heart and mind and body, but the rural practitioner knows the secrets of a tiny commonwealth of hearts, minds and bodies. The whole and its parts in their wonderful, compact relation is laid out as nearly within his grasp and understanding as the human relation can be displayed, and medical science is bound hand and foot with the fetters of this relation. I would say to the young men going into the country, as I wish someone had said to me: "If there is anything as interesting and helpful as human anatomy and physiology it is the anatomy and the physiology of society. Study your small field eagerly, analyze it thoughtfully, remembering that human nature is the same in Podunk as in Detroit or Grand Rapids or New York, and in the old Adam as in either of them."

I have tried to explain to you my belief that the developmental influences of a strictly rural practice will cultivate the habit of detachment and respect for fundamentals. More than that, those influences possess all the essentials of a pioneer struggle, and the word pioneer is always suggestive of self-sufficiency. The early cultivation of this quality may not seem worth the trouble at the expense of some things which the city opportunity affords. If this be the case, at least I may perhaps have portrayed the rural location as not so unfruitful as the young man may imagine.

But now, before leaving the subject, I cannot forbear to speak of those things which some are pleased to call the softer influences of our daily experience. In this case I shall speak briefly of them as the charms of the country.

First, there is simplicity. One's idea of essentials is not so befogged with shop-window possibilities. One learns the possibility and comfort of traveling light on the journey of life. I believe this is one of the reasons why such a large percentage of successful men in our medical centers are of rural origin. Then there is another charm of rural practice. Perhaps I should say that it is the most inspiring and life-giving of all in these first years of daily companionship with sorrow and suffering. It is what Osler calls the "Poetry of the commonplace; of the ordinary man and the plain toil-worn woman.'"

May I be personal for a minute, since these experiences are by nature personal. One of my most happy bits of country remembrance concerns one of my first cases. A delirious old work-worn woman was calling for the "kid." She had a good many kids, so I asked her which one. "Why the kid doctor," she said. This was the beginning of many humiliations I suffered at their friendly, tolerant hands. Particularly significant also to me is that the last person I saw as my train pulled out of the village for the last time was our wash-woman. I had healed up a long standing sore on her leg and she had proclaimed publicly and privately, in a loud voice, that "I 'vas de mos' vonderful doctor in de vorl." On the day I left she came out on a bleak, treeless bluff to wave me a good-bye. The gesticulations of her great red arms and the radiance of her great toothless grin make one of the sustaining pictures of my life — sentimental though that may seem. Every country doctor treasures such memories of incomparably wholesome, daily

friendship with unaffected souls on the level of communal life.

Then one cannot pass by rural humor without paying his due. It is the most spontaneous, refreshing and wholesome humor in the world. It strikes you, bowls you over like a huge salt comber, and it takes some few trials to come up smiling. It toughens the skin and knocks a man into shape.

And after all there is that other charm, especially to the eager, inquiring mind, the daily companionship with nature. I do not mean that one gets into any poetic "mooning" over it. But for instance, weather in the city is a thing largely of paper and printer's ink, physical comfort and discomfort; while in the country it is a very companionable thing of sun and wind and rain and friendly prophesy — all the fundamentals of weather. In the country one sees the weather come from afar off; sees it blast his hopes of a last payment on a typhoid case; or literally wrench the crops out of the ground with good nature. One cannot help learning to watch things grow and to interest himself in the ways of vegetation and the lower animals. When the wheat comes to town the checkbook comes on the front seat. When the stuck pig howls in the barnyard the checkbook is again moved to generosity, and again when the flock is led to the shearing. The country doctor's bank account is the sign of the times, not the rise or fall of mere mechanical industries, but the more incomprehensible times and seasons of the inscrutable industries of nature. And more than this, I am sure that any "once country doctor" will say with Keats of 'Nature's glories infinite':

"Nor do we merely feel these essences
For one short hour; ————————."

but they

"Haunt us till they become a cheering light
Unto our souls, and bound to us so fast,
That, whether there be shine or gloom o'ercast,
They always must be with us or we die."

And they are always with us, on Woodward avenue, on Hastings street, or through a five-story window; the south wind never loses its identity, nor a wet moon, nor good corn weather.

But why, after all, should the small rural community be only a probation? First, for the same reason that even the city doctor, who won't get into a rut must travel. Our faithful young man after three or four years, through faithful self-struggle and improvement should deserve the relief of hospital aid and must have begun to need the stimulus of more exacting competition, to say nothing of the inspiration and companionship of his peers. Let us hope that in the too small village he is only a probationer; alive to his present opportunities and his future. But if for some reason he cannot leave his first field for more than the frequent visit to the medical center, there *are* compensations and possibilities. Even such limited returns to study and the companionship of great men and great clinics are like the Christmas feasts to the news boy. He may have eaten his fill of fundamentals every day of his life, but it is the feast and the fellows which lift him to another plane, brighten his eye and tickle his wit. As Mr. Arnold Bennett says of all feasting: "One eats and drinks to excess, not because it is one's custom to eat and drink to excess, but from sheer effervescent faith in an idea." I know of no better description of the table which the "corn-fed doctor" finds spread for him in the medical center, nor the new inspiration and faith in his science which it affords him.

27 East Grand River Avenue.

REMOVAL OF FOREIGN BODIES FROM THE EYE; WITH REPORT OF THREE CASES *

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Removal of foreign bodies from the eye is a problem ever before the oculist. Such foreign bodies may be divided into three classes, those non-penetrating, those penetrating within the globe, and those penetrating the orbital tissues, but not the globe.

NON-PENETRATING

Non-penetrating foreign bodies are, of course, the most common and usually present no difficulties of removal—a little cocain, a sharp scoop or the tip of a cataract knife—if imbedded in the cornea or conjunctiva. Sometimes the foreign body is merely under the lid, or lodged in some place on the conjunctiva, and may be removed by a cotton-tipped applicator.

These substances, by their scratching and irritation, cause much pain and often set up a severe conjunctivitis, which usually will disappear after removal of the foreign body, and instillation of adrenalin, followed by some mild antiseptic until the injured conjunctiva has opportunity to repair. More severe inflammation and ulcers resulting from the too long presence of foreign bodies; cinders, steel, emery, etc., demand careful attention.

With the usual non-penetrating foreign body we have little trouble, but I would caution the operator to be sure that not only the foreign body is removed, but also the burnt tissue, rust or other debris. I have seen many cases where the foreign body was removed, but not the debris, burnt tissue, rust or whatsoever, resulting in severe conjunctivitis or ulcer. These results usually are in persons who had the foreign body removed in some shop by a fellow workman with a keratome (or jack-knife) and cocain kept for the purpose.

One of the most difficult non-penetrating foreign bodies to remove is the barbed beard from grains, barley in particular. These barbed beards have a creeping and penetrating perversity.

* Read before the Calhoun County Medical Society, Feb. 4, 1913, at Battle Creek.

CASE REPORTS

Case 1.—M. C. L., Dec. 23, 1911. Patient consulted me for a swollen and very painful eye which had developed following working in barley straw. I found a deeply injected and swollen conjunctiva, a hazy cornea, with a large ulcer in the upper nasal area, and after close inspection found a barley beard imbedded in the cornea—nearly penetrating. I grasped the offender with small forceps, but could not remove it without dissectiong the whole thing out. After thorough disinfection with bichloride of mercury at first, later sulphate of zinc as an antiseptic, and with liberal use of adrenalin, the eye cleared up, leaving a facet.

Foreign bodies deeply imbedded, but not penetrating into the globe may cause very confusing symptoms—as witness:

Case 2.—T. C., aged 46. Patient consulted me for glasses Aug. 24, 1912. Had worn glasses, but lost them sometime previously. I found: Left eye, 20/20 vision and accepts no lens. Right eye, 20/200, accepted —25=—75 axis 180°=20/25. However, this test was not clear cut, patient accepting Aug. 26 —1.00=—50 axis 180° = 20/30. On several days I secured different tests—no two alike, indicating ciliary spasm. I noticed a black spot on the sclera internal to the cornea and about 3/16 inch distant. On asking patient about this speck (nearly 1 mm. in diameter) I found that about six weeks previously he had been hit in the eye with a piece of metal, which he supposed had been removed by a fellow workman, but the eye was sore for some time. Since the injury he had been having "flashes of light."

I made a slight incision and felt a metallic substance, which was dissected out. It was deep in the sclera over the ciliary region. The injury promptly healed, and soon after I was able to fit lenses without difficulty: O. D.—1.50=+50 axis 90°=20/25.

I believe the irritation of this piece of metal was responsible for ciliary spasm, which prevented properly fitting glasses.[1]

PENETRATING

The removal of foreign bodies of the remaining two classes offers much difficulty, and each case is a problem of itself. If the offending particle has not entered the globe, the injury is usually less severe, but that all depends on what the offending particle is, its exact course of travel and location, the severity of the blow, and the presence of infection.

In penetrating injuries, always suspect that the offending body is retained, until its absence has been proven. This is the advice of most of the writers on this subject, and is especially valuable in view of the increasing number of malpractice suits, and of the likelihood of sympathetic ophthalmia.

The hand or giant eye magnet may be used for diagnostic purposes (if the offending material be a magnetic substance), to determine the presence and probable position of the intruder. Pain or a sense of pulling will indicate the presence of a magnetic body, but the absence of this pain or sense of pulling is not presumptive of the absence of the offending foreign body.

If the magnet diagnosis is positive, the removal may be proceeded with at once, but if negative, localization by the x-ray is indicated.

When the presence and position of the foreign body has been determined, removal is the next problem, whether the particle has lodged within the globe or not. If the globe is not injured the prognosis for a seeing eye is good, unless of course, the nerves are injured.

The giant magnet is used to remove magnetic matter—with incision or enlarging the entrance wound, providing the intruder is in such a position that such removal is safe and will injure no vital part. This must be left to the judgment of the surgeon.

If the particle has penetrated the globe, much or little damage may already have been done, depending on the point and direction of entrance, the size and form of the offender and the depth of penetration. Small particles penetrating the cornea and lodging in the anterior chamber, will usually not produce severe damage, unless by the force of the blow (which may produce rupture, dislocation of the lens or detachment of the retina); by the scar formation in healing of the wound which might be in the pupillary region; or by infection.

Penetration to and injury of the iris produces its own peculiar results — pain, tumor or coloboma, depending on circumstances. Objects penetrating to the posterior chamber are apt to produce more trouble, because of the injury to the iris or ciliary body, and of likelihood of injury to the lens. Penetration of the lens, ever so little, or rupture of the capsule will almost universally produce more or less complete traumatic cataract.

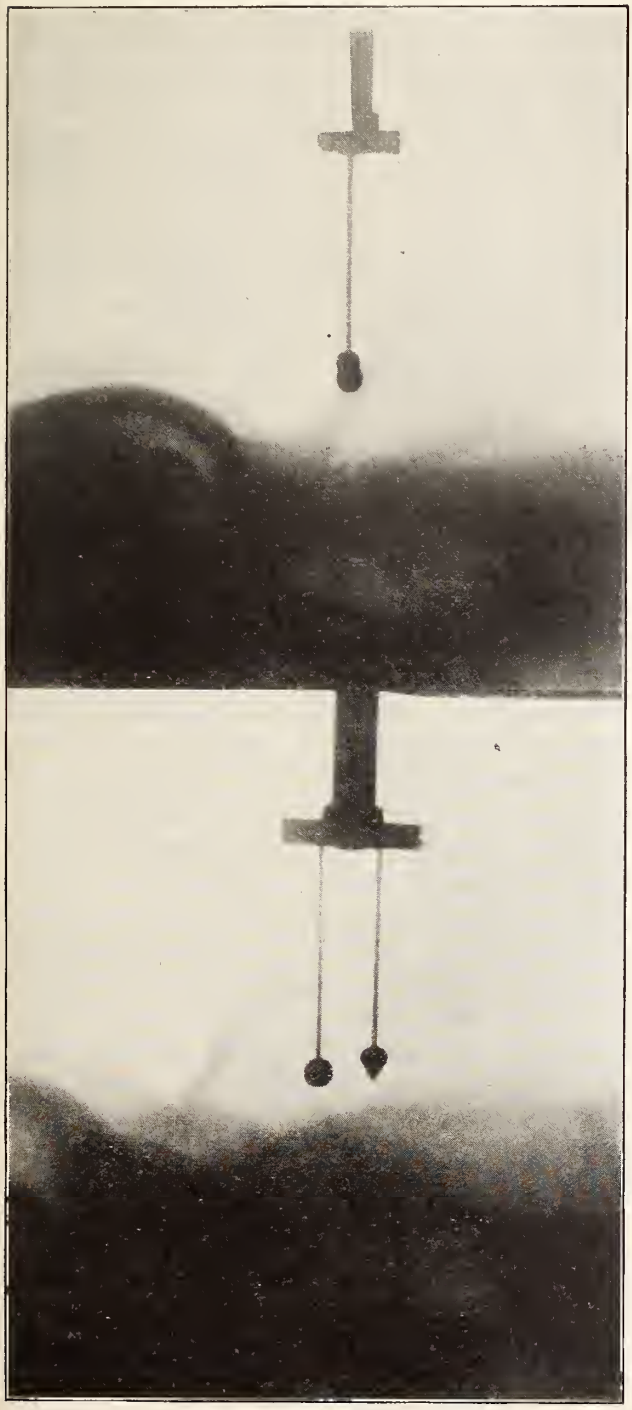
Penetration into the vitreous and deeper portions of the eye is a serious matter, demanding removal, or probable enucleation.

There is much difference of opinion regarding the methods of removal of foreign bodies from the globe, but all agree on the necessity for prompt removal with as little trauma as possible. It is true that foreign bodies have been known to remain in the eye for months and years without appreciable harm, but the exceptions are so few as to serve only to prove the rule.

1. May 22, 1913, this patient consulted me about this eye, complaining of failing vision for two months. The lens is hazy with a distinct iris shadow, and a white reflex with oblique light. Retinal reflex indistinct, with a dark spot in center—a beginning cataract. Whether this is traumatic I do not know, but think it is. The other eye is normal.

Fuchs in his latest text-book on ophthalmology says:

"The attempt to remove a foreign body which has penetrated into the eye is often beset with great difficulties and very frequently is unsuccessful. . . Almost every individual case has its peculiarities and calls for an operation devised especially for itself."



It is not my intention to go exhaustively into the methods of removal of foreign bodies, but to speak of one or two interesting points. Almost all text-book authors recommend that where the foreign body is in the vitreous, or deeper structures, it be drawn forward by the giant magnet, to the posterior of the lens, when it is worked around through the suspensory ligament, and to the anterior chamber through the pupillary area, there to be removed through a small slit or T-shaped incision. Lamb of Cincinnati and others, recommend instead that the offender be removed through a sclerotomy incision at the most accessible point and behind the ciliary region, thus avoiding injury to the lens, suspensory ligament or ciliary body.

Text-book instructions on using the magnet are to "make" and "break" the current frequently, thus accelerating the "pull." In this connection, I have a suggestion, which in the case I am about to report, worked admirably. By attaching the rheostat or the magnet to the commercial alternating current we secure just as strong a "pull" from the magnet, and we obtain the benefit of the 60-cycle current giving very rapid "makes" and "breaks." Where the small hand magnet is being used, or the tip attached to the giant is inserted into the eyeball in the final extraction this 60-cycle current is of especial value in telling the operator at once whether the instrument is in contact with the metal, both by the sound and by the "feel." This suggestion, so far as I know, is new—I can find no report of its previous use and offer it for what it is worth.

CASE 3.—C. V. K., aged 36; machinist. While working in a shop, at about 5 p. m., Saturday, Oct. 26, 1912, bending a piece of hot iron pipe, a splinter flew from the pipe which he held directly in front of his face and about 8 to 10 inches distant, striking him in the right eye. Patient consulted Dr. Dullam, who referred him to me at about 8 p. m. the same evening.

He complained of intense pain in the eye and side of the head. I could see a piece of metal imbedded in the iris, extending deeper and nearly horizontally across the upper part of the upper outer quadrant. Vision, fingers; eye very sensitive to light. A small incision was made at the point of entrance, and an attempt made to remove the metal by forceps under cocain anesthesia, Dr. W. H. Haughey assisting. We worked about half an hour, diligently, but were unable to get hold of the metal without injury to the iris, so suspended operations to get the use of a magnet. A large horseshoe-shaped magnet was found at the sanitarium, where the patient was taken, and with the added assistance of Drs. Colver and Vandervoort another attempt was made to remove the metal. We were unsuccessful in the use of the large magnet, even after we tried to conduct the lines of magnetic force to the eye by means of steel bars. We worked some time with the magnet and with forceps, but unsuccessfully.

During manipulation the iris was torn at the position of the foreign body, which latter we were then unable to see. We were not sure whether the foreign body was removed on the steel bars, as all pain was suddenly relieved and patient felt better. Not find-

ing the iron, however, a compress was applied, patient was taken home, and a magnet was ordered from the dealers. An X-ray was taken by Dr. J. T. Case, for the sake of localization, Sweet's method indicating the center of the foreign body at about 4.5 mm. to the right of the vertical meridian, 4.5 mm. above the horizontal meridian and 3 or 4 mm. posterior to a line through the anterior surface of the cornea, size apparently about 5 by 1 by .8 mm. This placed the center of the foreign body in the posterior chamber.

Wednesday afternoon, October 30, magnet having arrived from Chicago, a large incision was made through the upper two-fifths of the cornea at the limbus as for a cataract operation, the tip of the magnet was inserted in the incision and came in contact below the iris with the metal which was sticking into the lens. The iron was gradually worked outwards until we could grasp it with a forceps and remove it.

Using the alternating current enabled us to tell immediately when the tip of the magnet came in contact with the metal, by sound and by "feel," and told us also the moment magnet let go, so that we could go back for the intruder without taking the magnet tip out of the eye.

The metal is a piece of iron 5¼ mm. long, about 1¼ mm. wide at one end and tapering to a point at the other. It is about ¾ mm. thick with angular surface, rusty and scaly as if a chip from a rusty iron.

At first the patient could see shadows. November 1 patient complained that he could not see at all. The first few days I could see some retinal vessels, but not at this time. No increased tension at any time; no iritis, or iridoclyclitis. Atropin was used constantly until November 5, when the pupil was allowed to contract, to determine the amount of deformity of the iris —a coloboma in upper outer quadrant.

Jan. 10, 1913. Patient is blind in the injured eye, having projection only. A cataractous lens is visible, a white spot showing on raising upper lid. Without raising upper lid one would not know that the eye had suffered an injury.

This patient states that he has been advised by others to have the cataract "needled" to restore his sight, but I have not advised this for two reasons: First, there is an element of danger in all cataract operations and his eye is now not unsightly. Second, useful vision would not be restored, merely a larger field. A cataract lens would be required before this eye, giving an image on the retina which would not fuse with that of the normal eye.

In case he loses the other eye this eye would be serviceable after removal of the cataract.

WOMEN PHYSICIANS OF MICHIGAN

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No great structure is ever planned without making sure there is a reasonable hope of a solid and permanent foundation. Our present theme, Medical Women of Michigan, is no exception to the rule. These modern Athenas did not spring full armed from the head of Zeus. It is of interest that the way was prepared by the women of America, England and France with many examples of awakened determination for broader education among women in Italy, Germany, Spain and Russia, in fact, throughout the civilized world, did we choose to quote history. For our purpose, United States can furnish sufficient statistics. During the Colonial period of exclusive female midwifery, according to epitaphs of these practitioners, we have records of one, two or even three thousand babies apiece. During this period the medical profession proper of the Colonies remained entirely unorganized and inarticulate. Without making special inquiry, a superficial observer could have almost overlooked the existence of doctors as a special class in the community. During the years immediately preceding the Revolutionary War some physicians began to visit Europe for instruction. Their public service in the military hospitals later served to bring the profession for the first time out of obscurity, and the opportunities offered for the collective observation of diseases on a large scale first breathed the spirit of medical science into the American profession.

The first achievement of the new-born interest in medical art and education was the expulsion of "females" from the world-old traditional privileges of accoucheurs. In proportion as midwifery became enlarged by the new province of gynecology and medical men became skilled by enlarged opportunities, midwives remained ignorant. In 1762 Dr. James Lloyd, returning from study in England, began the practice of obstetrics in Boston. Dr. Shipman, similarly prepared, located in Philadelphia, others in New York and Baltimore. Men physicians monopolized the field. Thus must organized knowledge invariably triumph over unorganized ignorance, even though tradition, decorum and religion all be on the losing side. History chronicles events which mark especial epochs.

Since the beginning of our century of peace from foreign foes, women born during the years from 1815 to 1840 have in their maturity changed the outlook throughout the world and prepared the way for women as an intellectual and industrial factor. We in no sense belittle the marked capabilities of women prior to these years, but the Liberty Bell rang out the song of victory and equality for all. Selah!

As example: In England Queen Victoria and Elizabeth Fry had preceded Florence Nightingale in the effort to establish skilled nursing. Elizabeth Barrett Browning had written the cry

of the children. La Maternité in Paris led the world in knowledge of obstetrics and gynecology. Rosa Bonheur, the skilled artist, and others in every avenue of philanthropy and usefulness formed a royal procession of women who began real personal activity in the active theater of the age.

This propaganda was greeted alternately by the populace with surprise, applause, criticism, condemnation; slowly commendation and practical approval. This intellectual and humanitarian condition in Europe met with the already awakened conscience in American to the needs of the people. We can give but few of their leading actors. William Lloyd Garrison, whose mother had been a professional accoucheur in Baltimore, rearing and educating her sons after the mysterious disappearance of the father in their infancy. Henry Ward Beecher, Harriett Beecher Stowe, Lucy Stone Emerson, Lucretia Mott, the Channings, Emma Willard, Ann Preston, Emeline Cleveland and many noted Quakers, throughout the states. The "Brook Farm" experimenters, of whom a number had located in Cincinnati with Henry Ward Beecher as pastor; the Blackwell School, a leading educational center; these kindred spirits were in touch with the broadest outlook on life, and their system of underground telepathy kept them in touch with the highest ideals and criticisms of the world. It was quite possible in such an environment to develop a heroine for all time.

Elizabeth Blackwell, born in England in 1821, came to America with her parents and eight brothers and sisters in 1832. Her father died in 1838, leaving the family without financial inheritance, but a goodly stock of hereditary perserverance. Elizabeth was prepared as a teacher, specialized in music, with a goodly knowledge of Greek, Latin, history, methematics, French and German. We find her in 1842 seriously considering the feasibility or possibility of removing opprobrium from women who in greater or less numbers were acting as "healers of the sick," although without scientific knowledge. Her many conferences with physicians of ability, friends of her family who believed in the necessity of women in the medical profession applauded, but without showing her the way. Like Daniel O'Connell she was ready to "Demand the utmost and to get something." First the money must be earned.

In 1845 we find her teaching music in Asheville, N. C., and reading medicine under Dr. John Dickson. After six months she removed to Charleston, S. C., continuing her instruction in music in a fashionable boarding-school for girls, and here had increased opportunities for study under Dr. Samuel H. Dickson, a distinguished physician and professor in the Charleston Medical College.

June, 1847, we find her in Philadelphia continuing her studies in anatomy and midwifery with Dr. Allen and Dr. Warrington, who used their influence to broaden her acquaintance among noted members of the profession and college professors. Now began the effort for admittance to the best colleges, four in Philadelphia and one in New York City. The replies from the different faculties were cordial, the plan was possible, there was need of women physicians—but they could not be responsible in admitting women to their respective colleges.

It is said to be easy to find generals for a campaign, but harder to secure privates. As this record is but to sound the pean of victory in our profession, we merely state the fact that Elizabeth Blackwell in 1847 was both general and private in storming the medical fort. With personal application and skilled pen, with the influence of sympathizing friends, she continued to appeal to public opinion. Twelve smaller colleges were selected. A reply came from Dr. Charles E. Lee, dean of the faculty of Geneva Medical College, now a part of Syracuse University, who wrote: "Quorum of the faculty submitted your proposal to the class of students numbering 150. Their vote was unanimous for your admission, which also includes endorsement from the chairman of the class in a personal letter with an assurance of welcome." The two college sessions completed the medical course, and on Jan. 22, 1849, Miss Elizabeth Blackwell received the well-earned degree of Doctor of Medicine. Her proficiency was not surpassed by any of her fellow students, who also have made American history, and their loyalty continued throughout their lives.

The admission of a woman for the first time to complete medical education and full equality in the privileges and responsibility of the profession produced a wide-spread effect in America. The public press most generally recorded the event and expressed favorable opinion. The London *Punch* gives a poem, of which we quote only the first stanza:

"Not always is the warrior male
Nor masculine the sailor.
We all know Zonagassa's tale,
We've all heard 'Billy Taylor,'
But for a noble heroine, she
Who wore the palm of knowledge
And took a medical degree
By study at her college."

Dr. Blackwell realized that only the first step had been taken, and although politely received by the heads of the profession of Philadelphia as a professional sister, was welcomed to the clinics of Pennsylvania Hospital and made intern of Blackley Almshouse. As better opportunities were offered in England and France, her decision was made to profit by European study. In London she received cordial reception from noted physicians; in St. Thomas and other hospitals she was invited to clinics and operations, the latter in most instances performed without anesthetics, yet her teachers and best friends strongly urged that Paris was the best place for thorough study. After two months in the general hospitals of Paris we find her a matriculant of La Maternité—the most practical place for definite instruction in obstetrics and gynecology, Drill's cliniques and ward work from morning until night, with no confusion, no pause and a comprehensive progress of each pupil was constantly listed by examination.

It was Dr. Blackwell's determination to become a skilled surgeon, but destiny decided otherwise. She contracted purulent ophthalmia from a patient and lost the sight of one eye, and incidentally much valuable time. At La Materniti, as in her previous medical work, she secured the highest credentials of her attainments and introduction to men of high standing in the profession. She returned to London. Application being made to the Dean of St. Bartholomew Hospital, the Medical Council decided that Miss Elizabeth Blackwell, a lady well connected in England and the United States, be admitted as student with permission to study in any ward, and follow the visit of any physician or surgeon who was willing to extend to her the facilities of his department. This permission was even accompanied by a cordial welcome from the Dean, Mr. James Paget, M.R.C.S., since, Sir James Paget. This, indeed, was joyful news to be admitted to the highest medical sanctuary, where every ward was open to her except the department for female diseases. In St. Bartholomew Hospital the admirable lectures on pathological anatomy by Sir James Paget; Dr. Kirk on physiology; Dr. Baley in his valuable investigation on dysentery, with courteous welcome to the wards of Drs. Stanley, Lawrence and Lloyd, the time passed pleasantly and profitably. Mrs. Paget introduced her as a "benefactor to the race," while Dr. Burrows, as having "established a principle for others by the success of her laudable enterprise"; and now, on the eve of her leaving for America, July, 1851, she might do anything she pleased at St. Bartholomew Hospital. Were her friends prophets that they saw in vision the honor to be awarded this lovely, energetic worker for the good of the race, the success of which she saw firmly established? She but finished her personal work three years since, and her ideal has been the keynote for medical women and will be for all time.

It was with a conscientious purpose that Dr. Elizabeth Blackwell returned to America after six years of medical study, although opportunities of remunerative private practice were available in London. Her first public work after her return to New York City, where she had decided to establishe herself, were "Lectures on Laws of Life in Regard to the Physical Education of Girls." These lectures were well received by her audience, and being published, gained an encouraging letter from Dean Carles E. Lee of Geneva Medical College, as well as valuable commendations from Mr. Ruskin.

In the two years of her absence in Europe there had been general skirmishing along medical lines in America. Her sister Emily had begun the study of medicine, was refused admission to the college honored by Dr. Elizabeth's brilliant record, yet was accepted at Cleveland College, where she graduated in 1852. In Boston a school of midwifery was started, but without patients. The Woman's Medical College of Pennsylvania received its charter in 1850, but also without clinical or hospital opportunities.

So far we have principally emphasized the "general's" work, but now we find in the field privates of caliber for majors, captains and sargents. It was for the purpose of systematizing medical work among women and setting a world example of the necessity for and capabilities of women, could opportunities be created where opposition was less deeply seated than in older countries, that Dr. Blackwell returned to America.

In Boston Miss Harriett Hunt, after some years of study with private tutors, as then the general custom with men as well, applied for admission to Harvard. She was refused. Applying again in 1850, four out of seven members of the faculty voted aye. Three colored men applied at this time. The students rebelled and Miss Hunt's permission was withdrawn. However, she did continue studying as men had done before her, was patronized and before her twenty-fifth anniversary she received her "license to practice" as men had been qualified.

Michigan, too, had ambitious women. Margaret Cannon Osborn, a student at the young ladies' seminary at Zenia, Ohio, began the study of

medicine with Dr. Brown, one of the professors. Her marriage to Dr. Osborn in 1846 delayed her theoretical studies while she became the mother of ten children, of whom our honored Ex-Governor Chase Osborn is one. In 1860 she paid the government tax and obtained license—obtained by filing the affidavits of six freeholders that she had had ten years of practice of medicine. Still unsatisfied, we find this honorable woman special assistant of her husband and partner at the age of 68 taking the medical examination of the College of Physicians and Surgeons of Indianapolis, and receiving her long-coveted diploma. She continued in active practice in Indianapolis until 82 years of age, six years after the death of her illustrious husband, Dr. George A. Osborn, and is still interested in her profession and all public affairs, although 86 years old. With Dr. Margaret Cannon Osborn, whose gift of her son, Ex-Governor Osborn of Michigan, our subject has special interest.

It seems certain that woman's necessities desired women physicians in their midst, and there were some who had modestly acquired skill by private routes and were reaping financial benefits through the known education and success of Dr. Elizabeth and Emily Blackwell. They established the New York Infirmary for Women and Children in 1854, warmly supported by Rev. Henry Ward Beecher. Dr. Elde of Philadelphia and Rev. Dr. Tyng, Jr., consulting physicians, Dr. Valentine Mott, Drs. John Watson, Willard Parker and Isaac Taylor were the early medical friends of the infirmary and remained so through life. Dr. Elizabeth Blackwell, physician in chief, Dr. Emily Blackwell, surgeon, she having returned from two years' study in Europe, a portion of the time having been spent with Sir James Simpson, as his private assistant, Dr. Marie Kackrewska, resident physician. A word concerning this most marvelous woman shows how world-spread had become the determination for educated women physicians, centralizing the work in America. Dr. Schmitt, head of the Berlin midwifery department, discovered her talent, advised her to study and finally appointed her chief midwife in the hospital under him. There she taught classes of about 150 women and 50 men. When Dr. Schmitt died the American consul advised her to come to America, but here the German doctors wanted her to become a nurse. She obtained her medical degree in Cleveland in 1854. Her father was a German baron, but died leaving his family in destitute circumstances. The New York Infirmary was the first hospital where women could receive practical instruction in America, except by personal favor. In 1862 the Woman's Hospital and Clinic was established in connection with the Woman's Medical College of Pennsylvania. The same year the New England Hospital for Women and Children was incorporated in Boston with Dr. Marie Zackrewska as resident physician.

The leading spirits of the Woman's Medical College of Philadelphia and Woman's Hospital were Dr. Ann Preston and Dr. Emeline H. Cleveland, an alumna of the W. M. C. of Pennsylvania and also of La Maternité of Paris. The latter was eulogized to his class in the University of Pennsylvania by Professor Wallace as the greatest obstetrician in America, not surpassed by Madame Boisvin of Paris. From these three centers, New York, Boston and Philadelphia, work was extended. The alumnae, after completing college and hospital work, established other hospitals, as Dr. Mary Thompson in Chicago, Dr. Charlotte Blake Brown in San Francisco, the Women's Hospital in Minneapolis, Dr. Rachel Gleason, wife of Dr. Edward Gleason of Elmira, watercure, an alumna of Syracuse University, who in this popular sanatorium for wealthy, chronic invalids won many people of influence to the cause, as well as recruits to the profession. Women physicians were not content with work at home but must needs carry the message to foreign lands.

Dr. Clara Swain, the first woman medical missionary, located in China and blazed the trail for others to follow. It is of interest that the first class of women graduates in medicine numbered eight, while the first class of men, one hundred years previously, had but a single member. Of the several medical colleges established for women before the state universities realized that education was useful to women, the Woman's Medical College of Pennsylvania is the one which still finds a reason for its existence. The New York Infirmary Medical College is incorporated with Cornell University; the Chicago Woman's Medical with the College of Physicians and Surgeons; the New England Medical ceased to exist in 1872.

Through the generosity of Miss Mary Garrett Baldwin, who donated $100,000 as a fund toward Johns Hopkins University, it is to be maintained for all time equally for women as men.

We find the first qualified woman physician in Grand Rapids, Mich., in 1868; the second, M. L. Towsly, M.D., in Kalamazoo in 1869. In 1870 Grand Rapids led the world in appointing a woman city physician, with double the salary of her predecessor. The office was tendered her the second year, when it became necessary for her

to remind the aldermen that their recently revised charter read "no one but an elector shall hold office," which is still the law.

The State Medical Society met in Grand Rapids in June, 1872, and so far as possible every medical woman in the state was notified. But three responded, Dr. Ruth Geary, Ypsilanti, Dr. Sibelia F. Baker of Coldwater and Dr. Frances A. Rutherford of Grand Rapids, who were elected members of the society by acclamation, the first women so honored—although the same year Dr. Anita Tyng of Rhode Island and Dr. Frances Porter of Kansas were so honored a few months later by their respective state societies. It was natural Michigan should lead other states in opening wide the doors of her university to all seekers of knowledge in 1871.

There is a legend that Mrs. Ruth Geary some years before asked under what condition she could receive instruction from the able men to whose support she contributed. Dean Palmer replied: "Women can only be admitted here as visitors." Day after day as Dr. Palmer met her with the question, "What are you doing here?" her invariable reply, "Just visiting," continued for the whole session. It must have been with real enthusiasm in later years that Ruth Geary, M.D., in company with her talented daughter, Harriet Geary, drank of the fountain of knowledge without question. Harriet Geary was the first woman graduate from the medical department of the U. of M. who performed a laparotomy; she bid fair to surpass competitors in surgery, but early succumbed to tuberculosis, and we have but the memory of—might have been. With the last commencement of the U. of M. the women medical graduates number 440, and, as the first American Alumnae invaded other states and countries, so should the university have recorded its honor roll.

Dean Victor C. Vaughan, president-elect of the American Medical Association, in a personal letter, says, "I can say with certainty that the portion of success among women has been as great as that among men."

Just here pardon a few statistics from the Department of Commerce received to-day. I notice that the census for 1910 is not yet completed, but gives the number for 1900 as 124,615 male physicians and 4,083 females. There are at present 8,000 medical women who claim America as their home; two-thirds of this number are married, have children, and a carefully compiled record shows that less than 6 per cent. die before the fifth year.

Of the earlier alumnae of Michigan University, Emma Call, class of 1873, not only led the class of ninety-six, of whom twelve were women, but carried off three honors as well. After two years of study in Europe, she returned to Boston, became identified with Dr. Marie Zackrewska and Dr. Mary A. Smith in the New England Hospital for Women.

Dr. Eliza Moshier, ex-dean of women at U. of M., and a writer; Lenora Howard, a resident of Grand Rapids, class of 1876, reached Pekin in June of the following year and began her work as missionary. During the autumn of 1878, the Viceroy, Li Hung Chang, sent for her to come to Tientsin to attend his wife. She was entertained at the official residence. Lady Li recovered. Li Hung Chang was so favorably disposed toward western science that he had taken a heathen temple built in honor of his predecessors and converted it into a hospital to be devoted distinctly to Christian work under the charge of a London missionary. In gratitude for the restoration of Lady Li he defrayed the expenses of a woman's ward in the hospital under the direction of Dr. Leonaro Howard. Dr. Howard made her residence in the foreign settlement about three miles from the temple and opened a dispensary there also. She cared for Li Hung Chang's mother in her last illness, who left $1,000 for the hospital, the first legacy of a Chinese woman for Christian benevolence. During Gen. U. S. Grant's visit to China, she acted as his interpreter. In 1887 Lady Li built a new hospital for Dr. Howard.

Dr. Minnie St. Clair Headland was physician to the Empress Dowager of China. The women of the U. of M. must be responsible for the reply of Li Hung Chang when asked what he most feared from the western nations: "I do not fear your armies, nor your navies, nor your diplomats, but I do fear your medical women."

Michigan, as early as 1885 — following the example of New York, Massachusetts, Pennsylvania and some other states—employed a woman physician, Helen Bissell, M.D., in the state asylum in Kalamazoo. Other women physicians were employed after this date, and in 1901 the legislature passed in substance: "All institutions where women and children are detained and kept shall employ women physicians"—really taking the lead of other states in not only providing for the state insane asylums, but for all private institutions as well.

Chicago with its five hundred ethical women physicians and hospitals has appealed to U. of M. women; in surgery, Dr. Bertha Van Housen and Dr. Alexander; in scientific work, Dr. Lydia Dewitt and Dr. Alice Hamilton. Of especial

interest is the public health work among women which Dr. Eleanor G. Eberhard has so successfully continued, following Dr. Rosalee S. Morton, its first chairman.

"In the words of the public there is no reason why the medical profession should discriminate against men in the matter of education; practically it has not been possible to do so, and we suggest Public Health Education."

Quite natural as the Woman's Medical College of New York Infirmary was the first college to have a full professorship in hygiene and public health, so Lucy Eames of Muskegon, bacteriologist to Hackley Hospital and medical inspector of schools, is adding to her home work by telling other educators how to make medical inspection most practical.

We refrain from giving further personal record of individuals, but could emphasize some special success of each of the 141 located in Michigan. In Detroit, Kalamazoo, Ann Arbor, Jackson, Adrian, Manistee, Saginaw, Lansing, Grand Rapids and other cities and towns within the state a fair proportion of the sick seek advice from women.

This paper is but a suggestion of the work fairly begun, and opportunities, for the test is not, "is it a man or woman?" but the test of real ability, education, tact and perserverance, for now as never before in all history do conditions warrant the work of men and women together for the betterment and welfare of humanity. To paraphrase a recent Fourth of July speech: "More and more are men and women's minds turning to the hope of success through their own efficiency, rather than through the deficiency of others."

REFERENCES

Pioneer Work in Opening the Medical Profession to Women, by Elizabeth Blackwell, M.D.

Woman's Work in Medicine in Americe, by Mary Putnam Jacobs.

Recent Reports from Women's Hospitals in Philadelphia, New York, Boston, Chicago and San Francisco.

CLINICAL CASE REPORTS

PRIMARY SYPHILIS AT AGE OF 81

R. A. C. WOLLENBERG, M.D.

DETROIT

During my recent service in the skin clinic of St. Mary's Hospital, there appeared a case of primary and secondary syphilis which was unique in respect of the age of the patient.

Wm. H., aged 81 years and 10 months, Canadian, had come to Detroit six months previously to spend here the days of his decline. He stated that he had been a sober and industrious farmer all his life time, and that after the death of his wife, thirty-nine years before, he had had no sexual connection to the date of his falling a victim to the wiles of the insistent mistress of his boarding house, a woman about 40 years of age. This occurred two months before his visit to the clinic. Two weeks after the connection he was aware of an erosion of the foreskin, which would not heal under his self-medication and caused him to seek advice.

Fig. 1

The patient was a "gnarléd old oak," but, though still moderately robust, showed every evidence of senility, as, dry wrinkled skin, white hair, flabby muscles, arcus senilis, and sclerotic temporal and radial arteries. He appeared without question to have the age he claimed. There was discovered a maculopapular eruption of skin of trunk and limbs, general enlargement of the lymphatic glands, and mucous patches of tongue and throat. The prepuce was edematous, and its dorsal edge was the seat of a large "beaf-steak" chancre. He had also a large right inguinal hernia which had existed for many years.

Fig. 2

After two visits to the clinic the patient did not return, and I have lately learned that he was dead as result of an attack of pneumonia.

The sexual virility of this man was a most unusual one, and a venereal infection at his late age has never been reported in modern medical history, so far as I know.

Accompanying photographs show the chancre and skin lesions.

J. Henry Smith Building.

SKIN GRAFT FOR X-RAY DERMATITIS

J. J. FABIAN, M.D.
GRAND RAPIDS, MICH.

The chronicity, severity of pain, constitutional symptoms and instantaneous relief following transplantation, justifies me in reporting the following case:

Mrs. H. E. H., married, aged 62, family history negative, has four healthy children. With the exception of "malarial fever" patient has always been in good health up to five years ago, when she fell, suffering a dislocation and fracture of the right shoulder. Following reduction and immobilization, the fluoroscope was used to determine the accuracy of the correction. Ten days following the third exposure the patient developed a slight inflammation and excoriation of the skin over the right scapula; this was accompanied by an itching and burning sensation. The area of involvement gradually increased in size and the symptoms in severity, until a zone the size of the shoulder blade became involved; the pain and discomfort became constant, requiring the use of opiates for their relief.

For the past three or four years conditions have remained much the same, excepting that the patient developed a marked neurasthenia, at times bordering on melancholia. During all this time she had been under treatment, traveling from one physician to another, seeking relief.

Physical Examination. Patient is emaciated and appears older than the age given. Lungs, few crepitant râles at right base posteriorly; heart, negative; kidneys, trace of albumin and few granular casts; pulse, 110; temperature, 101; blood, negative. Examination of the skin over the right scapula shows a thickened, dark-colored, oval scar measuring 13 cm. in width by 17 cm. in length. Over the entire area numerous small telengiectases can be seen. Pain, which is complained of, is aggravated by pressure over the center of the scar. The pain at times radiates over the right shoulder and down the lateral aspect of the arm to the elbow.

Operation. June 14, 1913, under ether narcosis, a transplantation operation was performed. The thickened scar, together with its underlying fat, and a good margin of healthy tissue, was excised, exposing the trapezius muscle. The hemorrhage, which was considerable, was controlled by means of ligature and hot compresses. From the lateral surface of the right thigh, previously made sterile, medium-sized Thiersch grafts were removed with a razor, transferring them directly to the wound. It was not thought advisable to attempt extensive transplanting at one sitting, so the area was left incompletely filled, to be completed at a second operation. The usual rubber tissue strips and wet dressings were applied; these were left on for twenty-four hours, at which time it was seen that every graft was nicely taking. We then left the area exposed to the air and protected by a wire cage. This was kept in place for seven days and the numerous crusts which had formed were removed by vaseline dressing applied for twenty-four hours. On July 2 the second operation was performed and the balance of the exposed area was filled in with isodermic grafts taken from the thigh of the patient's daughter. These grafts were left exposed to the air without dressings and had all taken after five days. Patient dismissed July 10, cured.

The remarkable feature in this case was the absolute relief afforded by the removal of the extensive scar, the success of each graft on a freshly exposed surface, both autodermic and isodermic, and the general improvement in the health of the patient.

The grafts, if they are to live, become adherent to the underlying structure within a few minutes after they are applied, thus the surface from which a graft is removed, after overlaying it for ten minutes, is seen to be freshly oozing. The open dressing or exposure to air as advised by Wiener,[1] with proper protection against injury or dirt, should be the method of choice. After grafts have become well imbedded and crusts have formed between them, a vaseline ointment dressing for twenty-four hours will effectually clean up the entire field. The operation is necessarily an aseptic one—no antiseptics being used—and considerable care should be exercised in laying on the grafts without the slightest injury. A general anesthetic should always be used in removing the skin, gas being the anesthetic of choice.

"DON'T DIE ON THIRD"

All the world's a baseball diamond. Every physician and surgeon is in the game—the dead ones are looking on. Perhaps you have reached first by your own efforts. It may be that the sacrifices of your friends have enabled you to reach second. Then on some one's "long fly" you have advanced to third. The competition against you at third is stronger than at first or second. Your competitors converge all their attention on you, scheming to "put you out" or put you among the "left on bases" in the box score of the game. Keep your eyes wide open. Don't die on third.

Are you doing your best to win the score that life is ready to mark up against your name? Third base has no laurels upon which you can rest. What are you doing on third? If you place all your dependence on what is coming to you, your waiting means failure. What are you doing on third? Waiting for "something to turn up"? Don't—nothing turns up but the thumbs of the men who are watching you from positions higher than yours, they may turn down.

So don't die on third. Bring to third every bit of your honest strength; study conditions, dig your spikes into the soil and get ready to run; postpone thinking of your success and yearly profits until you hear the umpire call "Safe at Home."—*The Rotarian.*

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1. Journal of the Am. Med. Ass'n, Vol. XL, No. 20.

FORTY-EIGHTH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY, FLINT, MICH., SEPT. 4 and 5, 1913

OFFICIAL CALL

The Forty-Eighth Annual Meeting of the Michigan State Medical Society will be held in Flint, Genessee County, Michigan, on Thursday and Friday, September 4 and 5, 1913. The Fifth Annual Meeting of the County Secretaries' Association will be held on Wednesday afternoon, September 3, at 3 p. m. The Council will meet in regular session on Wednesday evening, September 3, at 8 o'clock.

WALTER H. SAWYER, President.
FREDERICK C. WARNSHUIS, Secretary.

PLACE OF MEETING

The General Session, the House of Delegates and all Scientific Sessions will meet in the Masonic Temple. The exhibitions will also be located in this building. The County Secretaries' Association will meet in the Masonic Temple at 3 p. m., September 3. The first session of the Council will be held in the parlor of the Hotel Dresden Wednesday evening, September 3, at 8 p. m.

THE COUNCIL

Chairman, William T. Dodge, Big Rapids.
Vice-Chairman, A. E. Bulson, Jackson.
Secretary, Frederick C. Warnshuis, Grand Rapids.

Meetings

Wednesday, September 3, at 8 p. m.
Thursday, September 4, at 12 m.
Friday, September 5, at 12 m.

HOUSE OF DELEGATES

Masonic Temple.

President, Walter H. Sawyer, Hillsdale.
Secretary, Frederick C. Warnshuis, Grand Rapids.

By-Laws—Chapter IV, Section 1. Each component county society shall be entitled to send to the House of Delegates each year one delegate and one alternate for every fifty members, and one delegate for each major fraction thereof; but each county society holding a charter from this society, which has made its annual report as provided in the Constitution and By-Laws, shall be entitled to one delegate and one alternate.

First Session, Thursday, September 4th

8:00 A. M.

Order of business:

1. Call to order by the President.
2. Report of Committee on Credentials.
3. Roll Call.
4. Reading of the minutes of the last Annual Meeting.
5. Report of the Council.
   W. T. Dodge, Big Rapids, Chairman.
6. Report of the Committee on Legislation and Public Policy.
   E. T. Abrams, Dollar Bay, Chairman.
7. Report of the Committee on Fee-Splitting.
   C. B. Stockwell, Port Huron, Chairman.
8. Report of the Committee on Public Health Education.
   Frances Rutherford, Grand Rapids, Chairman.
9. Report of the Committee on the Study and Prevention of Tuberculosis.
   Collins H. Johnston, Grand Rapids, Chairman.
10. Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of Schoolchildren Throughout the State.
    Walter R. Parker, Detroit, Chairman.
11. Report of the Committee on Medical Education.
    David Inglis, Detroit, Chairman.
12. Report of the Committee on Venereal Prophylaxis.
    A. P. Biddle, Detroit, Chairman.
13. Report of the Delegates to the American Medical Association.
    E. T. Abrams, Dollar Bay, Chairman.
14. Report of the Committee on Specialties.
    Emil Amberg, Detroit, Chairman.
15. Election of Committee on Nominations.
    The duty of this committee is to nominate:
    (a) 1st, 2d, 3d and 4th Vice-Presidents.
    (b) To nominate one delegate and one alternate delegate to the House of Delegates of the American Medical Association to succeed E. T. Abrams, whose term expires.
    (c) To nominate Councilors for the 2d, 8th, 9th and 12th districts.
    (d) To fix the place of meeting for 1914.

    By-Laws—Chapter VI, Section 2. The House of Delegates shall elect annually, at its first meeting, a Nominating Committee of five from the House of Delegates; no two of whom shall be from the same Councilor District.
16. Appointment of Business Committee and other working committees by the President.
17. Miscellaneous Business.
    (a) Recommendations of the Council.
    (b) Proposal of amendments to the Constitution and By-Laws.

AMENDMENTS TO BY-LAWS

In compliance with the instructions of the Council the following amendment to the By-Laws is offered:

Chapter IX, Section 10:

Strike out the word "June" and insert in its stead "April"; the sentence to read: "Members in arrears after April 1 shall not be entitled to defense for any suit, the cause of action of which arose while in arrears, and any member sued or threatened before joining the society, or before the organization of the Medico-Legal Fund, must pay the actual cost of defense in such suit."

By-Laws—Chapter XI. Section 1:

Add to the section: "Such dues and assessment shall be remitted to the secretary of the State Society on or before April 1 of each year."

Chapter XI, Section 2:

Strike out: "On the date above stated," and insert: "On or before April 1 of each year."

18. New Business.
19. Adjournment to the General Session.

Second Session, Friday, September 5th
8:00 A. M.

1. Roll Call.
2. Reading of Minutes of Previous Session.
3. Report of Business Committee.
4. Reports of Appointed Committees.
5. Report of the Committee on Nominations.
6. Election of Officers.
7. Unfinished Business.
8. Miscellaneous Business.

Adjournment to Section Meetings.

HOUSE OF DELEGATES.—DELEGATES AND ALTERNATES TO THE FORTY-EIGHTH ANNUAL MEETING

Note.—The black-face type is that of the delegate; the other that of the alternate.

ALPENA—Branch No. 46

C. M. Williams, Alpena.
D. A. Cameron, Alpena.

ANTRIM—Branch No. 65

(One delegate.)

BARRY—Branch No. 26

(One delegate.)

BAY—Branch No. 4

J. W. Gustin, Bay City.
J. C. Grosjean, Bay City.

BENZIE—Branch No. 59

G. O. Edmunds, Honor.
E. J. C. Ellis, Benzonia.

BERRIEN—Branch No. 50

L. A. King, Baroda.
R. C. Allen, St. Joseph.

BRANCH—Branch No. 9

A. G. Holbrook, Coldwater.
W. A. Griffith, Coldwater.

CALHOUN—Branch No. 1

R. D. Sleight. Battle Creek.
W. H. Haughey, Battle Creek.

CASS—Branch No. 36

Edgar A. Planc, Union.
Wm. C. McCutcheon, Cassopolis.

CHARLEVOIX—Branch No. 37

(One delegate.)

CHEBOYGAN—Branch No. 58

Chas. B. Tweedale. Cheboygan.

CHIPPEWA—Branch No. 35

James J. Lyon, Sault Ste. Marie.
J. A. Ferguson, Rudyard.

CLINTON—Branch No. 39

M. Weller, St. Johns.
J. E. Taylor, Ovid.

DELTA—Branch No. 38

M. P. Fenelon, Escanaba.
A. L. Laing, Escanaba.

DICKINSON - IRON—Branch No. 56

(One delegate.)

EATON—Branch No. 10

W. H. Rand, Charlotte
A. H. Burleson, Olivet.

EMMET—Branch No. 41

J. H. Charters, Boyne City.
J. J. Reycraft, Petoskey.

GENESEE—Branch No. 24

A. J. McReynolds, Flint.
W. J. Wall, Avoca.
Henry Cook, Flint.
H. D. Knapp, Flint.

GOGEBIC—Branch No. 52

L. O. Houghten, Ironwood.
E. Madajesky, Bessemer.

GRAND TRAVERSE - LEELANAU—Branch No. 18

(One delegate.)

GRATIOT—Branch No. 25

W. M. Drake, Breckenridge.
L. A. Howe, Breckenridge.

HILLSDALE—Branch No. 3

T. H. E. Bell, Reading.
C. T. Bower, Hillsdale.

HOUGHTON—Branch No. 7

(One delegate.)

HURON—Branch No. 47

Sheldon B. Young, Caseville.
E. E. E. Yale, Pigeon.

INGHAM—Branch No. 40

B. M. Davey, Lansing.
Seth Jones, Lansing.

IONIA—Branch No. 16

J. J. McCann, Ionia.
E. W. Lytle, Belding.

ISABELLA - CLARE—Branch No. 54

C. M. Baskerville, Mt. Pleasant.
S. E. Gardiner, Mt. Pleasant.

JACKSON—Branch No. 27

Peter Hyndman, Jackson.
C. D. Munro, Jackson.

KALAMAZOO—Branch No. 64

G. F. Inch, Kalamazoo.
A. I. Noble, Kalamazoo.
C. H. McKain, Vicksburg.
H. Ostrander, Kalamazoo.
E. P. Wilbur, Kalamazoo.
W. F. Hoyt, Paw Paw.

KENT—Branch No. 49
N. M. Kassabian, Coopersville.
J. D. Brook, Grandville.
B. R. Corbus, Grand Rapids.
F. J. Lee, Grand Rapids.
Collins H. Johnston, Grand Rapids.
T. C. Irwin, Grand Rapids.

LAPEER—Branch No. 23
Peter Stewart, Hadley.
J. P. Eggleston, Imlay City.

LENAWEE—Branch No. 51
W. B. Sprague, Palmyra.
R. E. Eccles, Blissfield.

LIVINGSTON—Branch No. 6
R. H. Baird, Howell.
C. E. Skinner, Howell.

MACOMB—Branch No. 48
H. F. Taylor, Mt. Clemens.
E. G. Folsom, Mt. Clemens.

MANISTEE—Branch No. 19
James A. King, Manistee.
R. J. Kirkland, Manistee.

MARQUETTE - ALGER—Branch No. 28
A. W. Hornbogen, Marquette.
T. A. Felch, Ishpeming.

MASON—Branch No. 17
W. C. Martin, Scottville.
W. Heysett, Ludington.

MECOSTA—Branch No. 8
George H. Lynch, Big Rapids.
A. A. Spoor, Big Rapids.

MENOMINEE—Branch No. 55
R. G. Marriner, Menominee.
Edward Sawbridge, Stephenson.

MIDLAND—Branch No. 43
F. A. Towsley, Midland.

MONROE—Branch No. 15
V. Sisung, Monroe.
W. F. Acker. Monroe.

MONTCALM—Branch No. 13
M. E. Danforth, Stanton.
F. A. Johnson, Greenville.

MUSKEGON - OCEANA—Branch No. 61
F. B. Marshall, Muskegon.
George S. Williams, Muskegon.

NEWAYGO—Branch No. 60
N. De Haas, Fremont.
Willis Geerlings, Reeman.

OAKLAND—Branch No. 5
George McKinnon, Oxford.
H. A. Sibley, Pontiac.

O. M. C. O. R. O.—Branch No. 11
C. C. Curnalia, Roscommon.
L. A. Harris, Gaylord.

ONTONAGON—Branch No. 66
(One delegate.)

OSCEOLA - LAKE—Branch No. 30
H. L. Foster, Reed City.
A. Holm, Leroy.

OTTAWA—Branch No. 32
(One delegate.)

PRESQUE ISLE—Branch No. 63
B. G. Larke, Rogers City.
W. W. Arscott, Rogers City.

SAGINAW—Branch No. 14
G. H. Ferguson, Saginaw.
D. E. Bagshaw, Saginaw.

SANILAC—Branch No. 20
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James W. Scott, Sandusky.

SCHOOLCRAFT—Branch No. 57
Andrew Nelson, Manistique.
S. H. Rutledge, Manistique.

SHIAWASSEE—Branch No. 33
George P. Sackrider, Owosso.
A. M. Hume, Owosso.

ST. CLAIR—Branch No. 45
George S. Ney, Port Huron.
M. E. Vrooman, Port Huron.

ST. JOSEPH—Branch No. 29
J. H. Moe, Sturgis.
R. D. Runyan, Sturgis.

TRI-COUNTY—Branch No. 62
O. L. Ricker, Cadillac.
W. J. Smith, Cadillac.

TUSCOLA—Branch No. 44
H. A. Bishop, Millington.
H. S. Karr, Akron.

WASHTENAW—Branch No. 42
J. A. Wessinger, Ann Arbor.
John W. Keating, Ann Arbor.
Wm. Blair, Ann Arbor.
R. Bishop Canfield, Ann Arbor.

WAYNE—Branch No. 2
J. W. Vaughan, Detroit.
Guy L. Kiefer, Detroit.
Walter Ford, Detroit.
F. B. Walker, Detroit.
J. E. King, Detroit.
E. W. Haass, Detroit.
W. J. Wilson, Jr., Detroit.
J. Stanley Miner, Detroit.
A. N. Collins, Detroit.
Hugo A. Freund, Detroit.
A. D. Holmes, Detroit.
F. B. Robbins, Detroit.
Ray Connor, Detroit.
L. J. Hirschman, Detroit.
Angus McLean, Detroit.
Howard Loongyear, Detroit.
R. E. Jamieson, Detroit.
R. L. Clark, Detroit.
H. W. Hewett, Detroit.
C. G. Jennings, Detroit.

GENERAL MEETING

Thursday, September 4th

10 A. M.

Masonic Temple Auditorium.

President—Walter H. Sawyer, Hillsdale.
Secretary—Frederick C. Warnshuis, Grand Rapids.

1. Call to order by the President.
2. Invocation.
3. Address of Welcome by C. S. Mott, Mayor.
4. Address of Welcome by Noah Bates, President Genessee County Society.
5. Response on Behalf of State Society by Walter H. Sawyer, President.
6. Report of the Committee on Arrangements.
   H. E. Randall, Flint.
7. Report of the House of Delegates by the Secretary.
8. Annual Address of the President, "District Supervision of Public Health."
   Walter H. Sawyer, Hillsdale.

   Dr. Sawyer's paper will be discussed by the following:

   Rt. Rev. John Newton McCormick, Grand Rapids.
   Hon. Perry F. Powers, Cadillac.
   Hon. Milo D. Campbell, Coldwater.
   Judge Claudius Grant, Detroit.
   Prof. Wm. C. Hoad, Ann Arbor.
   Rt. Rev. Charles D. Williams, Marquette.
   United States Senator Wm. Alden Smith, Grand Rapids.
9. Address, Woodbridge N. Ferris, Governor, State of Michigan.
10. Miscellaneous Business. Under this head there will be a general discussion of questions of medical economics. The opportunity is presented to every member to bring before the entire Society any subject of general interest, either by informal discussion or formal resolution.

Nominations for President for 1913-1914.
Adjournment.

SECOND GENERAL MEETING

Friday, September 5th

11:30 A. M.

1. Reading of Minutes.
2. Unfinished Business.
3. Report from the House of Delegates.
4. Miscellaneous Business. Another opportunity is given to present to the attention of the general body questions of general interest.
5. Announcement of the Committee on Nominations of the result of the ballot for President.
6. Introduction and Installation of the President-elect.
7. Resolutions.
8. Adjournment *sine die*.

SCIENTIFIC SECTIONS MEETINGS

By-Laws—Chapter III, Section 3. Except by special vote the order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed. No paper shall be read by title nor read by any other person than its author, except as a result of sickness of the author, or by the unanimous vote of the Section to which it belongs.

Sec. 4. No address or paper before the Society, except that of the President, shall occupy more than fifteen minutes in its delivery; and no member shall speak more than five minutes or more than once on any subject.

Sec. 5. All papers read before the Society shall be its property. Each paper read shall be immediately deposited with the Secretary of the Section.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Chairman—Eugene Smith, Detroit.
Secretary—H. Beach Morse, Bay City.
(As soon as a paper has been read it is to be filed with the secretary.)

First Session, Thursday Afternoon, September 4th

1:45 P. M.

1. Chairman's Address. EUGENE SMITH, Detroit.
2. Paper, "Some Points in the Technic of Sub-mucous Resection." C. H. BAKER, Bay City.
3. "Injuries to the Head and Ear Disturbances."
   EMIL AMBERG, Detroit.

   Synopsis.—The close connection between injury to the head and disturbances of the ear is far greater than is generally accepted.

   A more careful observation will, undoubtedly, bear out this assertion. It is not correct to assume that a sudden deafness, after an injury to the head, is due to a preexisting chronic middle ear catarrh.
4. "Report of Seventy-Five Cataract Extractions."
   D. EMMETT WELSH, Grand Rapids.
5. Paper, "Catarrhal Deafness. A New Explanation and Treatment."
   WILFRID HAUGHEY, Battle Creek.

   Synopsis.—A consideration of deafness and of the pathology of Parnacusis Willisii, with a newly suggested explanation and treatment based on this explanation. Report of two cases showing marked improvement in hearing.

Second Session, Friday Morning, September 5th

9:00 A. M.

6. "Acute Pharyngitis." B. N. COLVER, Battle Creek.
7. Paper, "Temperature Changes in Mastoiditis."
   DON M. CAMPBELL, Detroit.

   Synopsis.—General consideration of temperature in septic conditions, and especially with reference to variations in septic mastoiditis. Case reports and exhibition of charts.
8. "Personal Experience with the Sub-mucous Operation." ANNA O'DELL, Detroit.

Adjournment to the General Session at 11:30 a. m.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers.

9. "The Care and Treatment of Deep and Superficial Injuries of the Eyeball."
   C. L. CHAMBERS, Detroit.

10. "Trephine Operations in the Treatment of Glaucoma." WALTER H. PARKER, Detroit.

11. "The Relation of Ocular Symptoms to Remote Disorders." P. J. LIVINGSTON, Detroit.

12. Paper, "Mastoiditis." EDWARD J. BERNSTEIN, Kalamazoo.

13. Paper, "Cervical Lymphangitis Simulating Otitis Media." LOUIS J. GOUX, Detroit.

SECTION ON GENERAL MEDICINE

Chairman—James Cleland, Jr., Detroit.
Secretary—Benj. A. Shepard, Kalamazoo.

First Session, Thursday Afternoon, September 4th

1:45 P. M.

(The Secretary of the Section will collect all papers as soon as they are read.)

1. Chairman's Address. JAMES CLELAND, Jr., Detroit.

2. "The Attitude of the General Practitioner Toward the Tuberculosis Problem." J. B. JACKSON, Kalamazoo.

Synopsis.—Effort to check spread of tuberculosis most seriously hampered by lack of aggressive cooperation by large numbers of the medical profession. Many physicians unwilling to diagnose tuberculosis. The fact that the disease is curable is not fully appreciated by the profession. An aggressive policy includes: Early diagnosis, searching for sources of infection, recognizing house and room infections, chronic carriers, and the spreading of the teaching of the curability of the disease.

3. "The Diagnosis and Treatment of Tuberculosis. Lantern Slide Demonstration." O. W. MCMICHAEL, Chicago.

4. "The X-Ray Diagnosis of Diseases of the Lungs. Lantern Slide Demonstration." A. W. CRANE, Kalamazoo.

Synopsis.—A large fluorescent screen gives a moving picture image of the living chest. Auscultation may be performed simultaneously. Plates are required for detail observations. Pulmonary tuberculosis as a rule begins in the hilum of the lung, an area relatively inaccessible to clinical examination. The x-ray translates all physical signs into terms of density and motion. Skill in roentgenology as in auscultation and percussion consists in the ability to interpret the signs.

Second Session, Friday Morning, September 5th

9:00 A. M.

5. "Spasmophilia." COLLINS H. JOHNSTON, Grand Rapids.

Synopsis.—Spasmophilia is a functional disturbance of the nervous system, a condition met with in early childhood, which is recognizable through mechanical and galvanic hyperexcitability of the peripheral nerves and an inclination to tonic and clonic spasms, such as general convulsions, laryngospasms, spasmodic apnea and tetany. It is a very frequent disease in early childhood.

It includes not only the greater part of the convulsions of childhood, but exists in a large number of apparently healthy children for weeks and months without attracting the attention of parents or physician by the manifestation of severe symptoms.

It is most frequently met with in the winter and spring, when it is found, according to some authorities, in 40 or 50 per cent. of artificially fed babies. It is rarely seen in breast-fed babies.

Spasmophilia is frequently inherited. The disease rarely begins before the fourth month of life and is seldom seen after the second year. It is frequently found in combination with rickets.

The treatment is partly dietetic and partly medicinal and is usually productive of prompt results.

6. "The Present Status of Salvarsan in the Treatment of Syphilis." H. R. VARNEY and R. C. JAMIESON, Detroit.

Synopsis.—Advances made in the treatment of syphilis since the advent of salvarsan. Comparison of salvarsan, neosalvarsan and mercury in regard to properties, method of preparation, administration and effects. Rate of absorption and elimination of the different preparations. Indications and contra-indications of salvarsan. Advantages and disadvantages of this method. Conclusions.

7. Paper, "The Hypochlorite Treatment of Drinking Water; Observations and Conclusions Reached at the South Haven Station." FRANK C. PENOYAR, South Haven.

8. "Nervousness in Children." THEOPHIL KLINGMAN, Ann Arbor.

Synopsis.—Signs of neuropathic constitution, neuropathic physiognomy, mental status and motor sphere, diagnostic significance of paradoxy, perversity, timidity, weariness, inanition, physical fatigue, pavor nocturnus, idiosyncrosis, general motor restlessness, disturbance of sleep, tremors, etc. Nervousness and education.

9. "The Need of a Differential Diagnosis of Type of Diphtheritic Bacillus in the Management of the Disease." BLANCH EPLER, Kalamazoo.

Synopsis.—Cases directing attention to the need of investigating the present status of the etiology of diphtheria. Importance and difficulty in determining a positive bacteriological diagnosis of virulent diphtheria bacilli, virulent pseudo-diphtheria bacilli and avirulent diphtheria. Methods of differentiation, prophylaxis and methods of hastening the disappearance of the organisms. Inadequacy of health departments. Quarantine. The practical benefits to be obtained by differentiation between harmless and harmful bacilli and by cooperation of bacteriologist and practitioner.

Adjournment to General Session.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers of Section for coming year.

10. "Irregularities of the Heart, with Special Reference to Heart Block."
MARTIN A. MORTENSON, Battle Creek.

Synopsis.—Short discussion of our knowledge of cardiac irregularities, history of heart block, with report of a very pronounced case with autopsy findings.

11. "Presentation and Discussion of Specimens Illustrating Endocarditis Caused by Streptococcus Viridans and the Streptococcus Rheumaticus and Points of Difference in their Clinical Manifestations. ROBERT H. BABCOCK, Chicago.

Synopsis.—Demonstration and discussion of specimens, pathologic differences in the different bacterial infections. Explanation of cause of fatality. Illustrative cases cited. Atrium of infection often the throat. Need of recognizing diseased tonsils as sources of danger to persons with valvular lesions. Clinical phenomena.

12. "Significance of the Aldehyd Reaction in the Urine."
J. B. WHINERY, Grand Rapids.

Synopsis.—Theory in regard to the change of the bile pigment in the intestinal tract and again in the liver. Disturbance of liver function resulting in the presence of aldehyd in the urine. Value of the reaction as an aid in diagnosis.

13. "Fever and Its Significance as a Symptom."
J. H. DEMPSTER, Detroit.

SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman, Ernest K. Cullen, Detroit.
Secretary, Walter Manton, Detroit.
(The secretary will collect all papers as soon as they are read.)

First Session, Thursday Afternoon, September 4th

1:45 P. M.

1 "Early Diagnosis of Uterine Cancer."
J. H. CARSTENS, Detroit.

2. "Uterine Myomata and Malignant Degeneration."
W. P. MANTON, Detroit.

Synopsis.—A more intimate knowledge of uterine myomata shows that they are not the innocent growths formerly supposed. A very considerable number undergo malignant process inimical to the host. Prophylaxis or prevention does not consist in the removal of existing cancer, but in anticipating its occurrence through appropriate treatment. When myomata are single or small, myomectomy may be resorted to. When they are multiple or occupy the greater portion of the uterus, total ablation of that organ should be the operation of choice. This is imperative in the light of the increasing number of reports of malignant recurrence in the cervical stump, following supravaginal hysterectomy in cases in which malignancy of the original growth had not been suspected. Report of an unusual and illuminating case.

3. "Calcification of Uterine Fibroids."
R. E. BALCH, Kalamazoo.

Report of case with x-ray findings.

4. "Movable Kidney." E. T. ABRAMS, Dollar Bay.

5. "Vaginal Celiotomy in Ectopic Pregnancy."
H. E. RANDALL, Flint.

6. "Stenosis of the Cervix."
JAMES D. MATTHEWS, Detroit.

Morphology of cervix and its relation to adjacent structures. A causative factor in dysmenorrhea. A new operation for the more obstinate forms of stenosis.

Second Session, Friday Morning, September 5th

9:00 A. M.

7. "Cesarean Section."
A. M. CAMPBELL, Grand Rapids.

To be illustrated with lantern slides. Report of case and statistics on operations performed in Michigan.

8. "Report of Case of Placenta Praevia."
W. H. MORLEY, Detroit.

9. "The Treatment of Nausea and Vomiting of Pregnancy." FRANK W. LYNCH, Chicago.

10. "Emptying the Uterus as One of the Methods of Treating Antepartum Eclampsia."
REUBEN PETERSON, Ann Arbor.

Synopsis.—Whatever the true causes, eclampsia is due to an intoxication induced by the pregnant state, the termination of which is of advantage to the patient. The best results come from a rapid emptying of the uterus, as soon after the first convulsion as possible, by the methods best adapted to the case and most beneficial to mother and child. Failure to obtain good results have been due to: (1) the wasting of valuable time in other forms of treatment; (2) improper selection of method, so that the patient was subjected to prolonged anesthesia and great trauma; (3) sepsis, resulting from improper technic, in patients whose powers of resistance have been greatly lowered by the eclamptic poison. To obtain better results in ante-partum eclampsia, it is necessary to: (1) deliver the woman as soon as possible after the first convulsion; (2) employ a method which not only will empty the uterus quickly, but will also provide for the maximum safety of both mother and child.

11. "Toxemia of Early Pregnancy, with Case Reports."
RICHARD R. SMITH, Grand Rapids.

Third Session, Friday Afternoon, September 5th

1:45 P. M.

Election of officers.

12. "The Heart in Pregnancy."
HUGO A. FREUND, Detroit.

13. "Pulmonary Tubereulosis and Pregnaney."
BENJAMIN R. SCHENCK, Detroit.

Synopsis.—An estimate of the frequeney. Influenee of pregnancy on pulmonary lesions. Influence of tubereulosis on the pregnancy. Influenee on child. Does the old teaching, "fille, pas de marriage; femme, pas de grossesse; mere, pas d'allaitement," hold truth in the light of our present knowledge?

14. "Technie of Transposition Operation for Cystocele and Prolapse."
THOMAS F. WATKINS, Chicago.

Discussion of some of the more important features of the teehnie. Consideration of the principles involved in the operation. Results.

15. "Chronie Appendieitis in Whieh the Signs and Symptoms Are Not Direetly Referable to the Appendix." WM. F. METCALF, Detroit.

16. "Gall-Stones First Diseovered at the Time of Pelvie Operation." AGNUS MCLEAN, Detroit.

SECTION ON GENERAL SURGERY

Chairman—Robert J. Hutehinson, Grand Rapids.
Secretary—R. C. Stone, Battle Creek.
(The secretary will collect all papers as soon as they are read.)

First Session, Thursday Afternoon, September 4th
1:45 P. M.

1. Chairman's Address.
R. J. HUTCHINSON, Grand Rapids.

2. "Modern Treatment of Fractures."
M. L. HARRIS, Chicago, Ill.

Synopsis.—Diagnosis: Manner in whieh foree is applied, as eharacteristic fraetures result from the applieation of foree applied in a definite manner. Patients should be made familiar with eonditions of fraetures and possible outcome. Treatment.

3. "Bone Grafting for Pott's Disease and Ununited Fraetures." MAX BALLIN, Detroit.

4. "Bone Cysts and Sareomas: Diagnosis and Treatment." DEAN LEWIS, Chieago, Ill.

5. "Direet Blood Transfusion."
J. WALTER VAUGHAN, Detroit.

1. Indieation for direct transfusion.
2. The teehnie of direet blood transfusion.
3. Simplified methods of performing transfusion.

Discussion—W. E. MeNamara, Lansing; J. J. Reyeraft, Petoskey.

Second Session, Friday Morning, September 5th
9:00 A. M.

6. "Aspiration of Urinary Bladder."
FRED H. COLE, Detroit.

7. "Supra-Pubic Prostateetomy."
ANGUS MCLEAN, Detroit.

Diagnosis—Operative teehnie.
After treatment. Dangers of operation.

8. "Chronie Cystic Mastitis."
EDWARD S. JUDD, Roehester, Minn.

9. "The Abdominal Skin Reflexes in Aeute Inflammatory Skin Conditions in the Abdomen and their Significanee."
RICHARD R. SMITH, Grand Rapids.

Synopsis.—"The author has made a study of the abdominal reflexes in 100 cases of aeute abdominal conditions and draws conelusions therefrom as to their diagnostic value. In conjunction with other symptoms, the condition of the reflexes has a certain amount of eorroborative value, but may not be too mueh relied on."

10. "Tubereular Peritonitis."
D. E. ROBINSON, Jaekson.

Report of ease. Three eeliotomies.
Tubereulin. Reeovery.

Third Session, Friday Afternoon, September 5th
1:45 P. M.

Eleetion of offieers.

1. "Internal Medieine the Basis of Good Surgery."
H. B. GARNER, Detroit.

1. Complete diagnosis necessary in all surgieal eases.
2. Brief review of advaneement in medieine and surgery during past 125 years.
3. Knowledge of internal medieine and years of bedside experienee neeessary for making eomplete diagnosis.

2. "Shall the Total Death Rate in Cancer be Ascribed to Malignaney?"
WILLIAM FULLER, Chicago, Ill.

Synopsis.—The past and present death rate in malignant disease is not due entirely to "malignaney," but in a large per eent. of the eases to eareless and untrained medieal men. This must in part apply to the profession as a whole, but more partieularly to that part of the profession whose work brings it in first eontaet with the eaneer subjeet. It is that professional brother, be he speeialist or general praetitioner, who, when he first sees the patient, overlooks the usual eaneer sites, forgets the eaneer-bearing age, is unfamiliar with the preeaneer lesion, and fails finally to eorreetly diagnose beginning eancer, that should bear the brunt of this eritieism; it is this medieal man, regardless of his position in the profession, who should seriously study the question of eaneer as it stands to-day, when he will agree to the proposition that it is not always "malignaney" that kills in this disease, but very frequently a proerastinating medieal attendant.

The ineidence of eaneer is thought to be inereasing, but whether this is true or not does not eoneern us as clinieians; we do know, however, that it is not deereasing, and that our present results in the treatment of this disease are deplorably bad. The present methods of obtaining reports on the end results of operative work are defieient and of little value, if not often produetive of great harm, and should speedily be amended.

On the assumption that cancer, generally speaking, is first a local change, as a rule accessible, and therefore amenable to surgical treatment, should not often leave an excuse for the physician who overlooks so important a condition; and when he is finally held responsible to the law in thus consigning to a cruel fate the victims of malignant disease, a very notable reduction in the number of cancer deaths will be made.

3. "Injection of Boiling Water in the Treatment of Hyperthyroidism."

MILES F. PORTER, Ft. Wayne, Ind.

Theories regarding the cause of the symptom comcomplex known as exophthalmic goiter, and review of some of the more important methods of treatment, giving their advantages and disadvantages and the reasons therefor. Injections of boiling water; technic; occasions for failure; character of cases in which it is advised.

4. "Present Status of the X-Ray in the Diagnosis of Diseases of the Stomach."

P. M. HICKEY, CHARLES D. AARON, Detroit.

Normal form, size and position of the stomach. Rhythmic undulations and gastric cycle. Time of gastric evacuation. Changes in position of the stomach. Position of stomach in chronic appendicitis. Ulcer. Hour-glass stomach. Carcinoma. Cardiospasm and pylorospasm. Dilatation. Lantern slide demonstration.

5. "X-Ray Aid in the Recognition of Gastric and Duodenal Ulcer." J. T. CASE, Battle Creek.

COUNTY SECRETARIES' ASSOCIATIONS

Fifth Annual Meeting

Wednesday Afternoon, September 3d

3:00 P. M.

Masonic Temple

President—Charles E. Boys, Kalamazoo.
Secretary—C. T. Southworth, Monroe.

ORDER OF BUSINESS

1. Call to order by the President.
2. Roll Call.
3. President's Address. Charles E. Boys, Kalamazoo.
4. Address by President of the State Society, Walter H. Sawyer, Hillsdale.
5. "Paper. "The Social Relation of a Medical Society to Its Membership."

   Roland Clark, Wayne County.
6. Address by the Secretary of the American Medical Association. Alex. R. Craig, Chicago.
7. Paper, "Shall the Programs of the County Meetings Be Made Up of Home Talent or by Invited Guests Outside the County?"

   E. M. Highfield, Gratiot County.
8. Dinner as Guests of the State Council.

NOTE.—No discussers have been selected to open the discussion of the papers. It is expected that every secretary will participate in the discussion. During the dinner an opportunity will be presented to discuss the various problems with which the county secretary has to contend and to ascertain how the secretary of the other county accomplishes his work. No secretary can afford to miss this meeting. No county should neglect to insist that its secretary attend this meeting.

ENTERTAINMENT

Wednesday Evening, September 3d.—Informal smokers at the hotels. It will be necessary for the members of the Council, the House of Delegates and the County Secretaries to arrive in Flint during the afternoon of the 3d in order that they may attend the first sessions of their respective meetings. These smokers have been provided for them and for the early arriving members.

Thursday Afternoon, 4:30 o'clock.—Visit to the Buick automobile plant.

Thursday Evening, 8 o'clock.—President's reception. On the lawn of the Oak Grove Hospital. To be followed by a dance.

FOR THE VISITING LADIES

Thursday Afternoon.—The ladies will be entertained at the Country Club.

Thursday Evening.—President's reception and dance.

Friday Afternoon.—Automobile rides around Flint.

REGISTRATION

The members are requested to register as soon as possible after their arrival. The Registration Bureau will be located in the main entrance of the Masonic Temple.

PRIVATE ROOMS AND BOARDING PLACES

The Entertainment Committee assure us that they will be able to comfortably care for every member that attends. First-class rooms in private homes may be secured by addressing: Dr. F. B. Miner, 400 South Saginaw street, Flint, Mich.

HOTELS OF FLINT

Hotel Dresden, official headquarters, 300, American. Rate, $2.50 up.

Hotel Bryant, 100, American. Rate, $2.25 up.

Hotel Reed, 64, American. Rate, $1.25 up.

Hotel Crystal, 62, American. Rate, $1.25 up.

Hotel Dayton, 46, American. Rate, $1.25 up.

Chairman Hotel Committee, Dr. W. G. Bird, Flint.

Chairman Private Rooms Committee, Dr. F. B. Miner, 400 South Saginaw street, Flint.

AUTOMOBILE GARAGES

Storage Rates.

Flint Garage, 913-915 South Saginaw street. Storage, 50 cents per night.

Auto Sales and Supply Company, corner Court and Saginaw streets, 75 cents per night.

Park Garage, corner Detroit and E. Second avenue, 50 cents per night.

Automobile Exchange, 514 North Saginaw street, 50 cents per night.

Gasoline, oil, wash and polish at standard rates.

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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C. B. Burr.....	Flint	6th District
Daniel Conboy	Bad Axe	7th District
B. B. Rowe.....	Saginaw	8th District
Robert E. Wells.....	Traverse City	9th District
F. E. Ruggles.....	Bay City	10th District
V. A. Chapman.....	Muskegon	11th District
E. H. Webster.....	Sault Ste. Marie.....	12th District
C. M. Williams.....	Alpena	13th District
Reuben Peterson	Ann Arbor	14th District

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to Frederick C. Warnshuis, M.D., 91 Monroe Ave., Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications or advertisements.

Subscription Price—$2.00 per year, in advance.

SEPTEMBER

Editorials

CURETTAGE

Consistent with the teachings of modern gynecology, the curet should not be employed indiscriminately, but mainly as follows: (1) To obtain curettings for microscopical examination in cases of suspected malignancy; (2) for the diagnosis and treatment of certain pathological conditions of the uterine mucosa, which give rise to menorrhagia, metrorrhagia or both (we refer chiefly to gland hypertrophy, hyperplasia of the endometrium — Cullen), *dense uterine stroma* and *large venous sinuses;* (3) for the removal of non-infected remnants of an incomplete abortion or miscarriage; (4) for the treatment of dysmenorrhea in some instances.

It is now generally conceded that leucorrhea is rarely the result of endometritis, but mainly arises from existing cervicitis and occasionally from adnexal disease. To curet the uterus for the cure of leucorrhea when its etiological factor exists in the adnexa, would be as consistent as curetting the nasal mucous membrane in an effort to relieve symptoms that arise from antrum involvement; moreover, curettage in cases of pelvic inflammatory disease opens new channels for infection, and may cause a "flaring up" of latent processes with disastrous results. The cervicitis if not associated with extensive laceration and eversion of the cervical mucosa may, in many instances, be relieved by the local application of a strong solution of silver nitrate or by burning with the Pacquelin cautery. If lacerations with eversion exist, trachelorrhaphy or amputation of the cervix are the only means by which the leucorrhea may be cured. If the leucorrhea be a result of disease of the adnexa, attention must be directed toward the treatment of the pathological conditions that are causing the symptom.

True endometritis is comparatively rare and the small number of cases in which it does exist, justifies one in expressing his objection to curettage as a routine procedure in plastic repair of the cervix, vagina and perineum. The term *endometritis* has been greatly abused or misused. (In the annual report of a Michigan hospital the diagnosis is given of endometritis in 68 out of 326 gynecological cases—20 per cent. [?].) It should not be applied to those pathological conditions of the uterine mucosa which do not show microscopically the true picture of inflammation. In *gland hypertrophy,* unassociated with pregnancy, *hyperplasia of the endometrium, dense uterine stroma* and *large venous sinuses,* the stroma shows practically no infiltration with polymorphonuclear leukocytes or small round cells. The term endometritis applied to these conditions is a misnomer.

In view of these holdings of our leading gynecologists, the practitioner will no longer be justified in advising and causing a woman to undergo a curettage for the cure of leucorrhea, "catarrh of the womb," and for cervicitis. We realize that some hold that a curettage will correct a retroflexion or a displacement. While we admit that a woman suffering from malposition of the uterus and from leucorrhea may be temporarily benefited after a curettage, still we hold that the beneficial results are due to the rest in bed, rather than to the curettage. It is but a short time before she is again seeking relief from her condition. *Unless the etiological factor is sought and treatment directed toward its removal, we cannot hope to bring relief to the sufferer.*

Knowing then, as one should, that indications for curettage as formerly considered, for the cure of leucorrhea, etc., are fallacious, the time is then at hand when we should be consistent with our present-day knowledge and no longer perform a surgical operation which cannot be credited as being of marked curative value. We must add,

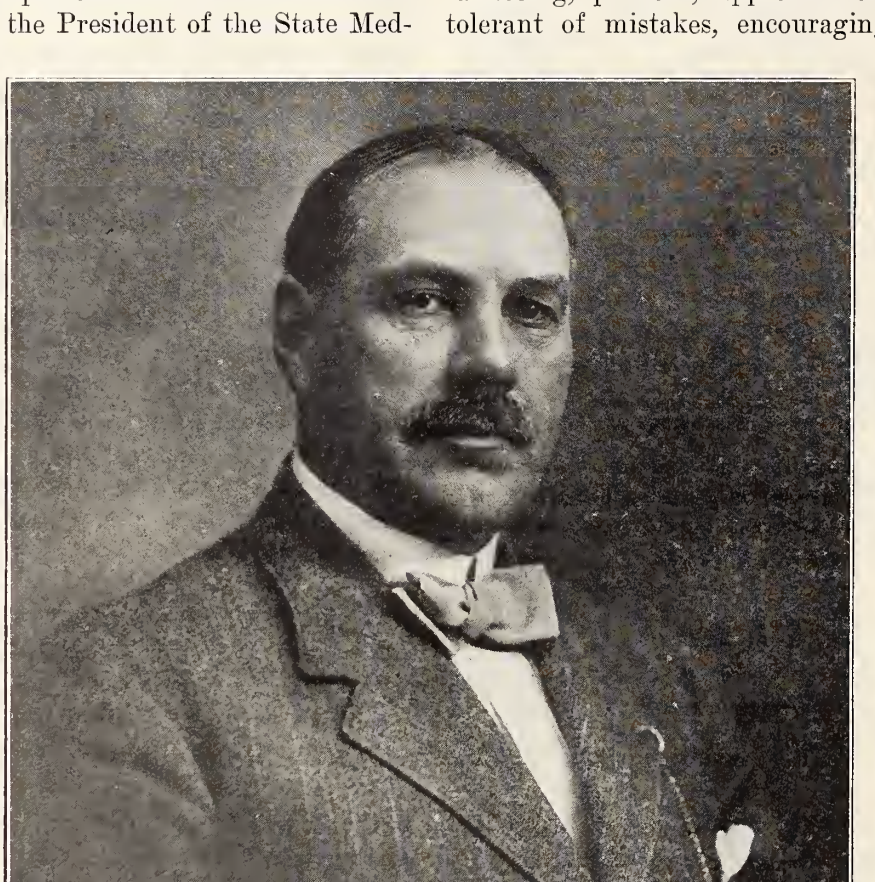
however, that in every case of abnormal uterine bleeding the etiological factor must be determined and in many instances the curet is the only hope. Every curetting should be examined microscopically. Reliance on naked eye appearances may be followed with disastrous results.

DR. WALTER H. SAWYER, PRESIDENT MICHIGAN STATE MEDICAL SOCIETY

It is the privilege of few men to enjoy the confidence of their professional associates to the extent that does the President of the State Medical Society, Dr. W. H. Sawyer of Hillsdale. In one of the speeches placing him in nomination, a historic remark made in a memorable convention of long ago was paraphrased something as follows:

"If you ask whence comes our candidate, we answer, not from Appomattox, although he would surely have been at Appomattox or in some situation under fire, serving his country, had he been of age at the time of the late Civil War, but from Cadillac when the blast furnaces are in operation, from New Mexico when lumber is moving actively, from Lansing when the legislature is deliberating on medical bills, from Ann Arbor when the Regents are in session, from Flint when Oak Grove Hospital's directors are meeting, and lastly, from Hillsdale, his place of residence, where he enjoys the complete confidence of a large clientele to which he is devoted and whose medical interests he will not renounce in spite of the large demands which civic affairs and business affiliations make on his time and energies."

Dr. Sawyer is a man of rare business sagacity, far-seeing, prudent, appreciative of difficulties, tolerant of mistakes, encouraging in adversity and never willing to withhold approval of success and accomplishment. Association with him is a constant source of stimulation and help to those engaged in the activities which have also enlisted his thought and interest. He has a wide fund of information, is of literary and scholarly tastes, loves men and to those who have heard his stirring, hearty, contagious laugh, the assurance that he is sociably inclined is wholly unnecessary.



WALTER H. SAWYER, M.D.

There is no man in the profession of Michigan who has worked more loyally for better stand-

ards, who has served more conscientiously on the committees of its representative bodies or given more time to working out problems for its betterment than our president. Yea, in the opinion of the writer of this appreciation there is no man to whom the profession is so deeply indebted as to Dr. Sawyer for the gradual and judicious evolution of bills concerning medical practice and their enactment into laws. From the moment his name was proposed for the presidency of the Michigan State Medical Society there was never any question of election, which was unanimous, there being no opposing candidate.

Dr. Sawyer is 52 years of age and has been a member of the Michigan State Medical Society since 1892. He was born in Lime Township, Huron County, Ohio, being the son of George and Julia A. Sawyer. His parents were of English descent, emigrating in the early thirties and settling in the western reserve of Ohio. He received his early education in Eaton Rapids and completed a high school course in Grass Lake, whither the family had moved, in 1880. After three years in the Homeopathic Department of the University of Michigan, he was graduated in 1884. After graduation he filled the position of house surgeon to the hospital for one year. In the year 1885, he located in Hillsdale in the practice of scientific medicine, unhampered by any consideration of sect. Such practice he consistently followed. He was married in 1888 to Harriet B. Mitchell, daughter of the late C. T. Mitchell, Esquire, of Hillsdale. He has one son, Thomas Mitchell Sawyer.

He was appointed to the State Board of Registration in Medicine in 1900, and served until his election four years ago to the Regency of the Michigan University. To the latter position he was reelected in the present year. He was chairman of the committee on legislation and public policy of the Michigan State Medical Society from 1904 to 1911. He is a member of the Board of Directors of Oak Grove Hospital and vice-president of that corporation. He is a member of the Episcopal Church and of Eureka Commandery, No. 3, Knights Templar; has been a trustee of Hillsdale College since 1894. In political affiliation he is a Republican, and has as a patriotic duty taken part in local, state and national campaigns. He has approved of the presence of the doctor in politics, is a believer in organization and of the increased effectiveness of work "where two or three are gathered together." His life furnishes a fine example of success attained through deserving. He is, in the language of Wordsworth, one of those "by their good deeds exalted." The Society chose its present president wisely, were it for no other than the selfish reason that "trust reposed in noble natures obliges them the more." C. B. B.

OUR INVITED GUESTS

The following invited guests, men of national reputation, will address the several scientific sessions at the annual meeting, September 4th and 5th.

HONORABLE WOODBRIDGE N. FERRIS, Governor of Michigan. Governor Ferris' interest in medical legislation and public health matters was manifested during our last legislature. His address promises to be of interest and undoubtedly will contain a timely message to the profession.

EDWARD JUDD, Surgeon, Mayo Clinic, Rochester, Minnesota. His work and writings have gained for him a national reputation. His paper, "Chronic Cystic Mastitis," will be deserving of our closest attention.

ROBERT H. BABCOCK, Chicago, Illinois. Dr. Babcock needs no introduction to the profession of Michigan. His reputation as an authority has been long established. His address on "Presentation and Discussion of Specimens Illustrating Endocarditis Caused by *Streptococcus Viridans* and the *Streptococcus Rheumaticus* and Points of Difference in their Clinical Manifestations," before the Section on General Medicine will merit a large audience.

MILES F. PORTER, SR., Professor of Surgery in the Indiana University School of Medicine, Fort Wayne, Indiana. Dr. Porter has appeared before several of our county societies. Known nationally as a most capable surgeon, an original investigator, a forceful speaker, we are fortunate in securing his presence at this meeting.

THOMAS J. WATKINS, Clinical Professor of Gynecology, Northwestern University Medical School, Chicago, Illinois. Dr. Watkins is known by reputation to our gynecologists. His address, "The Transposition Operation in the Treatment of Cystocele," will be of interest and value to the general practitioner as well as to him who devotes himself exclusively to gynecology and abdominal surgery.

DEAN DE WITT LEWIS, Assistant Professor of Surgery, Rush Medical College, Chicago. Dr. Lewis' special work in nerve surgery and the transplantation of muscles in cases of paralysis

is well known and lends additional interest to the announcement that he will appear on the program of the surgical section.

FRANK W. LYNCH, Assistant Professor of Obstetrics and Gynecology, Rush Medical College, Chicago. Dr. Lynch's well known work in gynecology and obstetrics needs no assurance on our part to the members of the State Society that his paper on "The Treatment of Nausea and Vomiting in Pregnancy" will be of exceptional interest and practical value to the general practitioner as well as to the specialist in the diseases of women.

MALCOLM L. HARRIS, Professor of Surgery, Illinois University Medical School, Chicago. Were Dr. Harris one of their own number, the profession of Michigan could have no better knowledge of his work in general surgery than they already have. It is therefore with pleasant anticipations that we await his paper on "Modern Treatment of Fractures."

ORVILLE W. MCMICHAEL, Chicago. Dr. McMichael's paper on "The Diagnosis and Treatment of Tuberculosis" is one that will appeal to the majority of the members in attendance at the annual meeting.

WILLIAM FULLER, Professor of Operative Surgery and Adj. Professor of Clinical Surgery, University of Illinois, Chicago. Owing to Dr. Fuller's opportunities for study and research along this line his paper entitled, "Shall the Total Death Rate in Cancer Be Ascribed to Malignancy?" will command unusual interest.

The above brief sketches of our guests precludes the necessity for further comment. The officers of the sections are to be congratulated on their efforts in thus securing the presence of such an array of invited guests. We trust that every member will hesitate a long time before definitely determining that he will not attend this meeting and thus forego the privilege of hearing and meeting these men of national repute.

THE FORTY-EIGHTH ANNUAL MEETING

A careful reading of the program, the noting of the names and personnel of the invited guests —nine of them—who are to be present and who will participate in the programs of the various sections, warrant the prediction that this is going to be a profitable and instructive meeting.

Further, there isn't a member who will attend this meeting, but will go home a better physician, better able to meet and solve the problems of his practice, and who will be inspired to do better and more scientific work consistent with the latest and accepted theories and teachings. He will be a better doctor than the one who stayed at home. There isn't a member who can afford to forego this Flint meeting. If he does, he will sustain a distinct loss; he will have let a valuable opportunity pass by unutilized—neglected. The profession of Flint and Genesseé County cordially invite you. They want you to come early and stay to the very end.

The House of Delegates will meet at 8 o'clock Thursday morning, September 4. The delegates are urged to arrive in Flint so as to be in attendance on this first session.

The General Session on the first day will be called to order at 10:30 a. m. The addresses of President Sawyer and Governor Woodbridge N. Ferris and the discussions that follow promise to be of exceptional interest and germane to the personal interest of each physician. The assembly hall should be crowded to its utmost capacity during this session.

The published programs of the sectional work are in themselves indicative of profitable instruction and scientific worth. The section officers are commended and deserving of the unanimous thanks of the Society for having put so much effort and time in their work in arranging for the presentation of so many valuable papers. There is every opportunity for you to show your appreciation of their efforts by engaging in the discussions of the various papers read.

The Flint physicians have not neglected the entertainment features and the reception and dance on Thursday evening promises to be a memorable and enjoyable function.

Once again, and for the last time, we desire to impress on each member—you will sustain a distinct and inestimable loss if you permit this Forty-Eighth Annual Meeting to pass without your being in attendance on the entire session.

Editorial Comments

REGISTER as soon as possible after your arrival in Flint. Masonic Temple, main entrance.

TO PARTICIPATE in all the sessions you should arrive in Flint on the evening of September 3.

"FOREVER absolve yourself from petty tricks too small to be criminal, but big enough to be unmanly."

THE Flint meeting will witness nine invited guests of national reputation appearing on the scientific program.

YOU owe it to your clientele, to yourself and to your county and the State Society to attend the Flint meeting.

YOU cannot hope to be the recipient of the full benefits of organized medicine unless you attend the Flint meeting.

THE annual meeting for 1913 is calculated to provide every one in attendance with two days full of profitable opportunities.

YOU are reminded to announce your name and residence on rising to participate in the deliberations and discussions of every session. The stenographers will thus be enabled to keep their records complete.

THE Clinical Congress of the Surgeons of North America, to be held in Chicago during the fore part of November, promises to be of inestimable interest, and provisions are being made for a large attendance.

YOUR patients will place a higher value on your services when they know that you have been in attendance on the Flint meeting. They will of themselves know that when you return home you will be a better doctor.

AGAIN we call the members' attention to the advertisements that are inserted in this issue by the business men of Flint. They were secured by Dr. Clark of Flint, and they should receive the patronage of the doctors of Flint and vicinity as well as of the visiting members.

DO YOU desire to obtain greater benefits from your county society? Then it behooves you to contribute a little more time and effort in its behalf each week. You will receive in return just what you give to it and—a good deal more. Just try, and thereby prove our prediction.

UNDER the head of "Correspondence" the reader will find a letter from the secretary of our State Board of Registration, together with certain replies received by him from the attorney-general. It contains information regarding the work of the board and the enforcement of the recent Medical Practice Act. This correspondence should prove of interest to every member, and we feel indebted to Dr. Harrison for permitting us to impart this information.

IN so far as we are able to secure them, each paper on the program is followed by a brief synopsis of its contents. This, we trust, will call forth more general and to the point discussions. Members are also enabled to look up their personal records and data, and in giving their experiences and opinions based on definite facts, the discussions are bound to be more valuable and instructive than a rambling, disconnected dissertation consisting of vague generalities.

A DORMANT adenomatous enlargement of the thyroid—one that has been dormant for a period of years—should not have directed toward it for the purpose of reduction of its size a course of medicinal treatment. While several weeks of such injudicious treatment may result in the reduction of its size, the practitioner will find that the patient's condition at the end of that time will necessitate his attention and treatment in the future to be directed to a myo- or endocarditis.

ARRANGEMENTS have been perfected whereby stenographers will take down the discussions following the addresses of President Sawyer and Governor Ferris. We also feel that the discussions of the papers of the invited guests are going to be of unusual interest and worthy of permanent record, and to that end we have arranged so that a stenographer will be in attendance at the sessions of the various sections. The discussions will be published in THE JOURNAL in connection with these addresses and papers.

THE election of Victor C. Vaughan, Sr., as President-Elect of the American Medical Association is being met with universal approval by the entire organized profession of the country, as evidenced by the favorable comments that are being made by the entire body of editors of medical publications who are expressing the sentiments of their respective localities. Michigan may be pardonably proud of being able to present, from within its borders, a man for this office who is so well known and respected by the organized profession of this country.

YOU are not lending the officers of your county society the cooperation that they merit if you are not actively participating in the work of your organization. In addition, your influence and solicitations are invoked in securing the affiliation of every reputable physician in your county. Interview the non-member, tell him what he is missing, point out to him why he should affiliate

with your society, induce him to join. Your society and its officers expect this assistance from you. You are in duty pledged to thus support them.

WHEN called to see a patient suffering with abdominal pain, the physician should exhaust every effort and means to determine its etiologic factors. Do not pass it by lightly or hurriedly and hastily prescribe an opiate. Thus neglecting it, your next or third visit may unpleasantly reveal that there is existing an appendicitis, gastric ulcer perforating, obstruction, strangulated hernia, gall-bladder or kidney involvement that has advanced to such a degree as to jeopardize the life of the afflicted, whereas early attention, with early institution of the proper form of treatment, would have obviated such a condition. We are lead to utter this reminder by reason of the fact that in the past few days we have seen a gangrenous appendix, a strangulated hernia, an intestinal obstruction go undetected for a period of from three to five days—two of whom were *in extremis* when the true diagnosis was made. Abdominal pain deserves careful investigation.

A CAREFUL record of your cases and their progress and termination will, in five or ten years, become a valuable asset to you. The keeping of case records and case histories are as essential to modern requirements and efficiency as are the reading of your medical journals, laboratory work, post-graduate work and the keeping abreast of the progress of our profession.

Further, such records will be valuable for reference when preparing a paper or taking part in medical discussions. Memory will fail you when endeavoring to recall the result in a single or collective number of cases. A classification and compilation of the results in a given number of cases will permit you to express an authoritative opinion that will be of added weight. The labor entailed is not burdensome. Systematization will enable you to readily accomplish it. This suggestion is urged on you with the hope that you will be influenced to comply with the suggestion.

THE representative and the detail man from the various manufacturers call on you and occupy your time. Why not tell them that they are not treating you fair. Tell them that you believe in reciprocity. They have something to sell and they are asking you to use their preparations and products, and in addition they are utilizing your time in doing so. In return for this inform them that you believe that they should patronize you. This JOURNAL is *your* journal, and you have advertising space to sell in this journal which they should buy. Patronizing *your journal* and buying advertising space in it will even up the business relationship. The manufacturer will benefit by receiving an increased volume of business. You will benefit by having your journal receive an increase of advertising receipts, which will enable your Publication Committee to send you a larger, better and valuable publication. If every member will engage every traveling man that calls on him in such a discussion it will result in having THE JOURNAL receive a larger number of advertising contracts. May we not ask this from you and at the same time request that you inform the detail man that you are patronizing those who patronize your publication. Having done this, then be sure that you are placing your orders with the firms that are advertising with you. A little cooperation is all that is required. Your assistance is needed.

State News Notes

Dr. Guy L. Connor of Detroit spent the month of July and part of the month of August at Atlantic City.

Dr. Z. M. Moore, formerly of Sparta, has moved to Grand Rapids and associated himself with Dr. Northrupp.

Dr. E. A. Chapoton, for many years a member of the Detroit Board of Fire Commissioners, has resigned his office.

The Battle Creek Sanitarium is experiencing a very prosperous year. On August 7 1,600 guests were registered.

Dr. Henry Sethney of Menominee has received the appointment as first lieutenant in the Michigan National Guards.

A supply of the August JOURNAL was sent to the doctors who were on duty with the Michigan troops in the Upper Peninsula.

A baby contest will be held in connection with the West Michigan State Fair to be held in Grand Rapids during the week of September 1.

The Northern Tri-State Medical Association will hold its next meeting in Kalamazoo during January. Dr. G. W. McCaskey of Fort Wayne is the newly elected president of this organization.

Ionia's new hospital, the first of the kind in that city, was opened for the reception of patients on July 17. It is a ten-bed institution.

Dr. Reuben Peterson of Ann Arbor delivered an address before the Mothers' League of Ann Arbor on "The Rights of the Unborn Child."

Dr. A. I. Noble, medical superintendent of the Kalamazoo State Hospital, in his July report stated that that institution had 2,031 patients enrolled.

Dr. J. T. Case and Dr. C. E. Stewart of Battle Creek are in Europe attending the International Congress of Medicine. Both of these doctors appear on the program of this meetiug.

Dr. D. Emmett Welsh of Grand Rapids was called to Philadelphia by reason of the serious illness of his sister. The doctor remained with her for ten days during the first part of August.

Newspaper information imparts the announcement that the State Board of Health will select Prof. E. D. Rich of the University of Michigan as the new sanitary engineer of that board. The law providing for the appointment of this officer went into effect on August 14.

Mr. A. A. Hale, who for the past ten years has been engaged in the work of the X-Ray Department of the University of Michigan, the last two years having served as its director, on August 1 assumed charge of the X-Ray Laboratory of Dr. F. C. Warnshuis of Grand Rapids.

Harper Hospital, Detroit, opened its new service building on August 5. A dinner to its medical staff was tendered by the trustees. The second floor of the Hudson memorial building was opened on August 12. These new quarters give the hospital accommodations for 180 additional patients.

Work has been started in Detroit for the erection of an eighteen-story building at a cost of $600,000. Fifteen stories of this structure will be rented as physicians' offices and will be modern in every detail. The building is being erected on the northeast corner of Adams avenue and Park street. It is to be known as the Kresge Medical Building.

"Dr. Ralph C. Smith is the only physician in Alpena who is not a member of the Alpena Medical Society and he has been made physician for the Alpena lodge of Moose. All the other physicians of that city have signed an agreement against contract work." We congratulate the Alpena profession on their stand and regret that one member of the profession should deem it wise to thus defeat the commendable efforts of his fellow practitioners in endeavoring to eradicate contract work. We sincerely hope that Dr. Smith will soon perceive the error of his action.

We are informed that thus far only two or three applications for registration from chiropractors have been received from Grand Rapids. From this it is inferred that they have formed a combination to fight the recent medical act. This, in view of the Attorney General's opinion, would prevent their registration in the future, from the fact that they have only until October 1 in which to make application. From another source we learn that a large number of the cult are preparing to leave the state. Out of fourteen chiropractors in one city only two are able to qualify for registration, and the others are preparing to leave for other states. Similar conditions prevail in almost every locality and a general exodus is expected before October 1. We may well be proud of a law that is so effective in ridding Michigan of these undesirable practitioners.

Deaths

Singer, Frank M. Detroit College of Medicine, 1906, Member Michigan State Medical Society, Wayne County Medical Society. Died July 27, 1913, at St. Mary's Hospital, Detroit, as the result of injuries sustained in an automobile accident.

Van Der Veen, Christian. University of Michigan, 1898. Member of Kent County Medical Society, Michigan State Medical Society. Died Aug. 10, 1913, at the Moshier Sanitarium, following acute erysipelas. Aged 40 years.

Society Proceedings

THE NINETEENTH ANNUAL MEETING OF THE UPPER PENINSULA MEDICAL SOCIETY

Between forty-five and fifty members of the Upper Peninsula Medical Society gathered for the Nineteenth Annual Meeting of this organization at Ishpeming on August 6 and 7, and participated in the deliberations of one of the most successful meetings of the society.

Unless one attended the meeting it would be difficult for him to imagine the interest that was manifested by each member in the papers that were presented and the "rattling good" discussiou that followed each speaker's paper or talk. It has been rather infrequently that we have had the opportunity of attending a medical meeting in which there prevailed such an earnest interest and in which the papers and discussions were so timely, instructive, practical and consistent with the modern advancements. There was not a single member who attended this meeting who did not return home enlightened and inspired to do better work. It was a program indicative of the men of the Upper Peninsula. The sessions were not tiresome and the entire field of medicine and surgery were represented on the program.

On Wednesday evening of the first day the members sat down to a banquet tendered to the members by the Marquette-Alger County Society. After participating of a sumptuous and appetite-inspiring menu the following program of toasts was carried out:

After-Dinner Talks

Toastmaster—Dr. George G. Barnett.

"Automobilitis, a New Form of Insanity." Dr. C. J. Ennis, Sault Ste. Marie.

"Untold Tales of a Delegate to the National Meeting." Dr. E. T. Abrams, Dollar Bay.

"Our Hosts." Rev. C. G. Ziegler, Ishpeming.

"Reminiscences of the Practice of Medicine in the Early Days." Dr. Benj. T. Phillips, Menominee.

"Our Appetites." Hon. W. T. Potter, Ishpeming.

"Morgan Heights from a Business Point of View." A. J. Yungbluth, Ishpeming.

"Modern Prison Methods." James Russel, Marquette.

"Our Wives and Our Gold Bonds." Dr. C. F. Larson, Crystal Falls.

"What the State Society Intends to Do for Its Members." Dr. F. C. Warnshuis, Grand Rapids, Secretary State Medical Society.

The responses were able and throughout all of them there flowed a happy vein of humor and the "oratorical flights" were the means of concentrating the interest so that it was with considerable regret that the members finally, at 1 o'clock, disbanded after the singing of "Auld Lang Syne."

The scientific sessions ended at noon on Thursday and in the afternoon the members were entertained at the new Morgan Heights Tuberculosis Sanatorium. Here a couple of hours were profitably spent in inspecting the beautiful grounds and buildings, as well as the methods employed in the care and treatment of the patients. After light refreshments served by the sanatorium board of managers automobiles were furnished to convey the members to Marquette, where they made a tour of the State Prison. All in all it was a pleasant afternoon, enjoyed to the uttermost by every participant.

New Officers

During the business session the following officers were elected for the coming year:

President—H. J. Hornbogen, Marquette.

First Vice-President—George G. Barnett, Ishpeming.

Second Vice-President—C. T. Moll, Kenton.

Secretary—Alfred La Bine, Houghton.

Next place of meeting, Houghton.

The following members signed the registration book and were in attendance:

H. J. Hornbogen.....Marquette
E. H. Flynn.....Marquette
A. L. Laing.....Rapid River
W. B. Boyce.....Escanaba
G. H. Boyce.....Iron Mountain
Wm. Elliott .....Escanaba
J. Mitchell .....Gladstone
A. H. Miller.....Gladstone
A. S. Kitchen.....Escanaba
L. R. Kratze.....Escanaba
Robt. A. Walker.....Menominee
Isaiah Sicotte .....Michigamme
J. W. Kirton.....Ojibway
G. M. Beltheumer.....Negaunee
F. Townsend.....Sault Ste. Marie
P. S. Wilson.....Negaunee
T. M. Cunningham.....Marquette
A. H. Anderson.....Negaunee
C. J. Larson.....Negaunee
H. H. Ptolemy.....Trenary
H. H. Loveland.....Republic
G. A. Conrad.....Houghton
A. J. Carlson.....Escanaba
G. G. Barnett.....Ishpeming
A. W. Hornbogen.....Marquette
H. M. Cunningham.....Marquette
E. Sawbridge .....Stephenson
M. P. Fenelon.....Escanaba
A. I. Lawbaugh.....Calumet
L. P. Treiba.....Bark River
Arthur Fischer .....Hancock
F. M. Harkin.....Marquette
A. A. Solberg.....Ishpeming
J. S. Nitteraeur.....Ontonagon
A. F. Snyder.....Escanaba
C. F. Larson.....Crystal Falls
V. H. Vander Venter.....Ishpeming
T. A. Felch.....Ishpeming

THE JOURNAL, this issue, contains Dr. Edward Sawbridge's presidential address and we shall endeavor to secure all the papers that were read and publish them in the succeeding issues of our JOURNAL.

The Upper Peninsula may well be proud of their society. It merits the support of every doctor of that region and he who remains unaffiliated is causing himself to forfeit opportunities that are of inestimable value.

UNION MEETING OF SANILAC, HURON AND TUSCOLA COUNTY MEDICAL SOCIETIES

On Monday, August 11, 1913, at the Presbyterian Church in Cass City, a union meeting of Sanilac, Huron and Tuscola County Medical Societies was held.

At 1 o'clock the following program was presented:

"The Feeble-Minded Problem in Michigan." Dr. H. A. Haynes, Lapeer.

"Diagnostic Criteria in the Insanities." Dr. A. E. Christian, Pontiac.

"Congenital and Acquired Adhesions of the Abdomen." Dr. E. E. Brush, Huron.

"Tuberculosis as an Indication for Interrupting Pregnancy." Dr. B. Friedlander, Sebewaing.

"Pyorrhea Alveolaria in Relation to General Health." Dr. W. J. Kay, Lapeer.

A supper was served by the Presbyterian ladies at 5 o'clock.

J. W. SCOTT, Sec'y, Sanilac County.
DANIEL CONBY, Sec'y, Huron County.
W. C. GARVIN, Sec'y, Tuscola County.

KALAMAZOO ACADEMY OF MEDICINE

The July 22, 1913, meeting of the Kalamazoo Academy of Medicine was held in the South Haven Club rooms at 10:30 a. m.

Dr. Mark Marshall of Ann Arbor presented a paper on "The Dietetic Treatment of Gastric Ulcer," and Dr. G. D. Carnes of South Haven gave a "Review of Dr. Cabot's Work on Essentials and Non-Essentials of Physical Diagnosis."

Immediately following adjournment the members of the Academy were entertained at luncheon at the Johnson House in Sauth Haven, as the guests of the physicians of South Haven, after which a boat ride on the river was enjoyed.

C. B. FULKERSON, M.D., Secretary.

EATON COUNTY

The Eaton County Medical Society held its regular meeting in Charlotte on Thursday, July 31. The following program was observed:

Business session and clinic at the hospital, 11 a. m.

Afternoon session at the court house.

Paper: "Neosalvarsan." Dr. Berten Davey of Lansing.

C. S. SACKETT, M.D., Secretary.

GRATIOT COUNTY

At the regular meeting of the Gratiot County Medical Society at the Wright House in Alma, Thursday, Aug. 14, 1913, the following program was given:

"Diseases of the Thyroid." Dr. H. F. Kilbourne, Perrington.

"Acute Appendicitis in Children." Dr. C. B. Gardner, Alma.

"Diagnosis and Treatment of Typhoid Fever." Dr. F. R. Blanchard, Lakeview.

"Diabetes." Dr. J. R. Schaffer, Elm Hall.

E. M. HIGHFIELD, Secretary.

INGHAM COUNTY

At Pine Lake on Tuesday afternoon, August 5, was held the annual picnic of the Ingham County Medical Society. Refreshments were provided by the doctors' wives and a very enjoyable luncheon was served at 1 o'clock.

A short business meeting occupied a portion of the time in the afternoon, several important subjects being discussed. H. S. BARTHOLOMEW, M.D., Secretary.

MONROE COUNTY

The annual mid-summer meeting of the Monroe County Medical Society was held at the Monroe Yacht Club on Thursday, July 17. There were fifteen members present. We had as our guest Dr. George M. Todd of Toledo, Ohio. No papers were read, but Dr. Todd gave an informal talk on "Tumors of the Tongue."

A chicken dinner at the Hotel Lotus was followed by a boat ride on the lake.

C. T. SOUTHWORTH, Secretary.

Correspondence

MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

DETROIT, MICH., July 19, 1913.

Dr. F. C. Warnshuis, Secretary-Editor, State Medical Society, 91 Monroe Ave., Grand Rapids, Mich.:

My Dear Doctor:—For your information, I enclose you copies of blanks approved by the board at its June meeting, and endorsed by the attorney-general. It seems to me that these blanks will furnish accurate information covering the actual enforcement of the exemption to the drugless healers, and prevent fraud in the registration of those persons who have not reputably graduated from cult colleges.

I have had a good deal of correspondence with the attorney-general, covering the legal points involved in the registration of cult applicants under the exemption in Section 3, subdivision third, and I enclose you some of the more material opinions obtained. In reply to one letter, in which I asked the attorney-general what, in law, constituted an incorporated college, he stated as follows:

"I have no doubt that the college referred to in this proviso must be a reputable one, and that the statute contemplates an actual attendance at such college and a graduation therefrom in accordance with the ostensible requirements as published. Under the authority of the cases, Metcalf vs. State Board of Registration, 123 Mich. 661, and People vs. Reetz, 127 Mich. 87; 188 U. S. 505; a state board of registration has the undoubted right to pass on the facts as to whether or not the requirements imposed by the statutes have been fulfilled within the contemplation of the law, such power not being, in the strict sense of the term, an exercise of a judicial function."

You will see, therefore, that the board will be obliged to go over each cult application for registration separately, and determine the fact, not only of graduation and two years' subsequent practice in Michigan, but will have to decide as to the reputability of the school from which the applicant graduated and the course pursued in such school, in addition to the fact as to whether the school was legally incorrporated two full years, plus the course advertised, prior to Sept. 1, 1913. From information thus far obtained it would appear that very few of the cult colleges have lived up to their published requirements, either in this or in other states.

We threshed this matter out some years ago, in the cases quoted above, viz., the Metcalf and Reetz cases, and the board was sustained, not only by the Michigan Supreme Court, but by the United States Supreme Court. Undoubtedly we will have a great many applicants for registration under the exemption clause of section 3, subdivision third, of the 1913 medical act, but through a proper method of administration a very large percentage of such applicants can be refused certificates under the law. In the event of a drugless healer applying for a board examination, he must first comply with the preliminary requirements of a standard equal to that demanded of a legally qualified medical man.

The so-called Michigan State Chiropractic Society held a meeting here in Detroit this week, and dissolved the association. A further association was formed, which I believe is to be designated "The Drugless Healers' Protective Association." This association has in view the possibility of the supreme court declaring the 1913 amendments unconstitutional. As noted by Attorney-General Fellows in his letter to me under date of May 28, they have very little chance of success, and the only possible result, even if the attorney-general is not supported by the supreme court in his general opinion, which I think very improbable, would be to cut out subdivision third of section 3, while the remainder of the act would stand. I had this in mind when writing the amendments, and kept all matter relative to cults out of the other provisions of the act. This would, therefore, result in their amending the act through a supreme court decision, in which the provision for their registration would be cut out, leaving the remainder of the act, including the definition clause, intact. From the standpoint of the medical profession, the elimination of this clause would leave the cult proposition entirely within the penalty clauses of the medical act, with no method for the legal registration of drugless healers.

You will probably remember that in 1900 we put out of business several hundred fake college graduates who had registered under the 1883 act, and this was accomplished largely through administrative methods.

Recently the supreme court decided an appeal case against Drs. K. & K., and in its decision called attention to the fact, that while Drs. K. & K. avoided the use of certain words prohibited in advertisements, "words and phrases just as effective in conveying the meaning were employed." This demonstrates that the Michigan Supreme Court construes the law, not on technicalities, but strictly in accordance with the intent of the legislature. The matter of the rescinding of the licenses of Drs. K. & K. will be taken up at the October meeting of the board, on the filing with it of a certified copy of final conviction. We have at least one other final conviction license to cancel at the above meeting.

I should be very glad, indeed, to furnish you with further detailed information, if necessary, and should also be glad to receive any suggestions you may think proper.

With kind regards,

Very sincerely yours,

B. D. HARISON, Secretary.

STATE OF MICHIGAN,
ATTORNEY GENERAL'S DEPARTMENT,
LANSING, May 28, 1913.

Beverley D. Harison, M.D., Secretary State Board of Registration in Medicine, 504 Washington Arcade, Detroit, Mich.:

Dear Sir:—Your communication of the twenty-seventh instant, relative to the constitutionality of certain portions of the law amending the General Medical Act, enacted at the last session of the legislature is before me.

I note that some question has been raised relative to the third subdivision of section 3, as amended, it being contended that the provisions of said subdivision are not within the scope of the act as indicated in its title.

In reply I would say that if the third subdivision of section 3 should be held unconstitutional and void, such holding would not, in my judgment, affect the other provisions of the act. It is the general rule that where the different parts of the law are not so closely related as to be mutually interdependent the unconstitutionality of one provision will not be construed to affect the validity of others not subject to the same objections. I do not, however, wish to be understood as conceding the invalidity of any portion of the act in question. Rather, I am impressed that the title is sufficiently broad in its scope to include any and all provisions incorporated in the body of the act. The title reads as follows: "An act to provide for the examination, regulation, licensing and registering of physicians and surgeons, and for the punishment of offenders against this act and to repeal acts and parts of acts in conflict therewith."

The word "physician" as here used must be taken to mean, in my opinion, one who is legally entitled to engage in the practice of medicine. It is specially provided in the act itself, in section 9, thereof, that "the practice of medicine" shall be taken to mean "the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect or complaint, whether of physical or mental origin, by attendance or by advise, or prescribing or furnishing any drug, medicine or appliance, manipulation or method, or by any therapeutic agent whatsoever." This definition is certainly sufficiently broad enough in its terms to include those specified in the third subdivision of section 3 who desire to practice a system not involving the use of drugs, medicine or surgery. In other words, while we do not ordinarily think of the persons provided for in the subdivision as being physicians, yet it is my opinion that the word as used in the title of the act must be deemed to include such, notwithstanding that they are expressly forbidden to use the specific titles permitted to those who are qualified to practice under the first two subdivisions of section 3. The inhibition with reference to the use of certain medical designations was undoubtedly incorporated into the law for the purpose of preventing confusion or imposition on the public. It cannot, in my judgment, be construed as indicating any intent on the part of the legislature to declare that the persons specified in the subdivision are not to be considered physicians in the broad sense in which that word was evidently used as indicated by the definition of the phrase "practice of medicine" found in section 9.

It further occurs to me that if this subdivision were entirely eliminated from the act and no provision made for those for whom it is intended to provide therein, any person practicing such a system as is contemplated for the relief of human ailments without the use of drugs, medicines or surgery, would be guilty of a violation of the provision of the act. This would, of course, necessitate a finding that they were practicing medicine within the statutory definition, and that any such person was acting or professing to act as a physician. It can, I think, be scarcely argued with any degree of plausibility that a particular class of people may not be provided for under the title of this act, but that individuals of that class may be prosecuted criminally on the ground that they are practicing medicine within the meaning of the law, if the subdivision in question were entirely eliminated.

I find that the question involved here has been passed upon by the courts of last resort of several states. In the case of Smith vs. People, 117 Pacific, 612, it was held that one who professed to be a "healer" and to possess divine inspiration must be deemed to be practicing medicine under the provisions of the statutes of Colorado, even though he used no drugs, medicines or surgical appliances. In the recent case of State vs. Corwin, 131 N. W. 659, the Supreme Court of the State of Iowa has held that a chiropractic must be deemed to be practicing as a physician under the code of that state, which contains a provision that any one shall be deemed to be practicing medicine, and and a physician, if they profess to cure or heal. This case is also interesting as indicating the proper construction to be placed on the word "physician," the view taken being as indicated above. Similarly the same conclusions as were reached in the above cases have been adopted by the Supreme Court of the State of Indiana in the case of Witty vs. State, 90 N. E. 627, which holds that one practicing osteopathy must be deemed to be practicing medicine. To the same effect are the cases of State vs. Adkins (Iowa), 124 N. W. 627, and Bandel vs. Department of Health (N. Y.), 85 N. E. 1067.

In view of these authorities, the broad definition of what is meant by the practice of medicine as laid down in the statute, and the resultant scope that must be given to the word "physician" as used in the title of the act, it is my opinion that no portion of the act in question is open to attack on the ground that it is not embraced within the scope of the act as indicated by the title.

Trusting that I have indicated my position in the matter, I am,

Very respectfully yours,

(Signed) GRANT FELLOWS,
Attorney General.

State of Michigan,
Attorney General's Department,
Lansing, June 30, 1913.

Dr. Beverley D. Harison, 504 Washington Arcade, Detroit, Mich.

Dear Sir:

I am in receipt of your communication of the 26th inst., enclosing certain blanks to be used by your board under the provision of the amendment to the medical act enacted at the session of 1913. Pursuant to your request, I have examined the different blanks submitted. I notice no feature of any of them that is objectionable from a legal standpoint. I have no doubt that it was the intention of the legislature to vest the State Board of Registration in Medicine with a considerable measure of discretion relative to these matters. It seems to me that the various points covered by the blanks submitted are entirely proper. In order that the board may perform its duties as contemplated by the statute, it will, of course, be absolutely necessary that it be supplied with the required information with reference to the qualifications of applicants for registration.

I am returning herewith the different forms enclosed by you.

Respectfully yours,

(Signed) Grant Fellows,
Attorney General.

County Secretaries' Department

The Journal is the official publication of your organization. It is one of your duties to supply The Journal with the reports of your meetings and your members expect that you shall fulfil this trust. Please do so.

In order that this department may more fully meet the purpose for which it was established, it is desired that all secretaries lend it their co-operation by sending in their views, experiences and suggestions regarding their work and their successes and failures. May we not be the recipient of something along this line from *you* for our next issue?

The county secretaries of the state are requested to mail a postal card to every one of their members urging that they attend the annual meeting at Flint on September 4-5. Kindly comply with this request and also urge that your society be represented through a majority of your members.

There are certain members of the various county societies who are still in arrears with their 1913 dues and are consequently upon the suspended list. These members should not be permitted to step down and out of the ranks of organized medicine without the effort being made to interview them and thus inducing them to become members in good standing.

Will you endeavor to see those of your society who are thus in arrears and point out to them the loss they are sustaining by permitting their names to remain on the suspended list? Will you not report to this office the result of these interviews so that we may be of assistance to you?

The fall of the year is at hand, and those of our county societies that have been taking a summer recess will commence resuming their meetings during the middle and latter part of September. Plans for your winter's program should commence demanding your attention. Unless you plan sufficiently long beforehand, you cannot expect to present to your members a series of papers that will supply their requirements or expectations. It goes without saying that an attractive program is essential to a good meeting.

This question of programs, how to arrange them, nature of papers, invited guests, discussions and publicity, will be a topic that will receive consideration at the secretaries' meetings. We desire that you participate in the discussion, relate methods and experiences and also be enabled to secure new and practical suggestions through the obtaining the experiences and ideas of your brother secretaries.

Every county secretary of the state is urged to be in attendance at the County Secretaries' Association meeting which will be held on Wednesday afternoon, September 3, at 3:00 p. m.

The program of the meeting and the discussions that are to take place will have a vital bearing on the work of each county secretary. So vital and important will be the transactions of this session that no secretary can neglect to attend. Your loyalty to your county and state societies demands your presence.

Dr. Alexander R. Craig, Secretary of the Medical Association, will address the meeting on Organization Work and How to Build Up a County Society.

Dr. Sawyer, President of our State Society, will also deliver a talk that will bear on the relation of the state to the county society.

The remainder of the program will be found elsewhere in this issue. The formal program will be followed by a dinner that will be tendered to the secretaries by the Council. At this dinner there will be a number of informal talks on secretaries' problems and will bear on programs, business methods, social features, guests, and similar phases of the work of a secretary.

In view of all this we trust that no secretary will fail to attend; his presence at this meeting will result in his being a better secretary and as a natural sequence his society will be a better society. As you desire and labor for the cooperation of your members, so do the officers of your state society desire *your* cooperation in this work and to make this meeting a potent factor in bringing about a better, larger, more influential state society. Again, you will be looked for on September 3, at 3:00 p. m.

Public Health

Conducted by
Robert L. Dixon, M.D.
Secretary Michigan State Board of Health

OPHTHALMIA NEONATORUM

The subject of blindness is of no small importance, not only from the scientific and sentimental points of view, but from the economic aspect as well. Blindness is admitted by all to be one of the most severe afflictions possible to the human body. None of us knows how prevalent this affliction is among the people of Michigan. The records of such conditions are incomplete and undoubtedly show far short of the real situation. The school census of 1911 returned 487 children who were totally blind or whose vision was so impaired as to prevent their attending the public schools. Less than one-third of these could be accommodated at the State School for the Blind. The new buildings provided for by the recent legislature will make it possible to take care of many more than heretofore.

I am informed by the superintendent of the State School for the Blind that from his study of the certificates accompanying the children entering that institution, he finds *32 per cent. are reported as being blind from birth.*

Dr. F. Park Lewis, President of the National Association for the Prevention of Blindness and Conservation of Vision, says: "There are in the state of New York somewhat more than six thousand blind people (not including the still larger number who have lost only one eye). It is the accepted conclusion of those who have carefully studied the question, that of these, had proper measures been taken in the way of prevention and of good care and correct treatment, one-third surely should never have lost their sight, and that the eyes in two-thirds of these cases might have been saved. The blindness in only one-third of the cases was considered absolutely inevitable, and, had the principle of eugenics been practically applied, in even some of these cases, blindness would not have occurred."

It is not to be doubted that preventable blindness exists in at least as large proportions among the citizens of Michigan. Not a few of these cases must be charged to the negligence of physicians in their failure to apply well-known and decidedly simple prophylactic methods. It is true that we place some of these cases against the untrained, uncontrolled midwife, but the health officer of one of our largest cities recently stated that of all the cases of ophthalmia neonatorum coming to his attention, by much the larger per cent. were in the practice of physicians, even when taking into consideration the number of obstetrical cases managed by physicians as compared with those handled by midwives.

Be those points as they may, it is beyond dispute that the blinded child and society as a whole pay too great a price for the failure to conserve the most precious of the several senses.

Ophthalmia neonatorum has recently been declared by the State Board of Health to be "a dangerous communicable disease," and as such physicians are required by law to report their cases to the local health department.

The Michigan legislature, at the last session, made a law in relation to this subject. The full text of the law (Act 123, Public Acts, 1913) follows:

"Section 1. It shall be the duty of the State Board of Health to officially name and approve a prophylaxis, to be used in treating the eyes of newly-born infants, and it shall be the duty of the Board to publish instructions for using the same.

"Section 2. It shall be the duty of any physician, nurse or midwife who shall assist and be in charge at the birth of any infant or have care of the same after birth, to treat the eyes of the infant with a prophylaxis approved by the State Board of Health; and such treatment shall be given as soon as practicable after the birth of the infant and always within one hour; and if any redness, swelling, inflammation or gathering of pus shall appear in the eyes of such infant or on the lids or about the eyes within two weeks after birth, then any nurse, midwife or other person having care of the infant shall report the same to some competent practicing physician within six hours of its discovery.

"Section 3. Any failure to comply with the provisions of section two of this act shall be punishable by a fine not to exceed one hundred dollars, or imprisonment in the county jail not

to exceed six months, or both such fine and imprisonment in the discretion of the court."

By another enactment the birth certificate must bear the statement that the infant's eyes were treated as required by the statute first cited.

Complying with Section 1, Act No. 123, the State Board of Health officially names and approves as a prophylaxis to be used in treating the eyes of newly-born infants, *2 per cent. silver nitrate solution.* The eyes are to be *first* washed with physiologic salt solution or with boric acid solution, after which *one drop of 2 per cent. silver nitrate solution* is to be instilled in each eye.

This act takes effect August 14, 1913.

New and Nonofficial Remedies

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

SOLUTION AMYLENE-CHLORAL (50 PER CENT) KALLE. A 50 per cent. solution of amylene chloral, a combination of chloral with amylene hydrate. It is soluble in alcohol, but insoluble in water. Its actions are much like those of chloral, but with less power to abolish the reflexes and less irritating. Merck & Co., New York (*Jour. A. M. A.*, June 14, 1913, p. 1881).

PITUITARY LIQUID.—Pituitary liquid is a sterile solution containing the active principle of the posterior lobe of the pituitary body of the ox. Each cubic centimeter represents 0.2 gm. of the fresh posterior lobe of the pituitary body in physiologic salt solution. It is said to be useful in cases requiring stimulation of the heart or raising of the arterial tension. It is claimed to be valuable in paralytic distension of the intestines and in postoperative and other pareses as well as in promoting uterine contractions during labor. It is supplied as Ampoules Pituitary Liquid, 1 c.c. Armour & Co., Chicago, Ill. (*Jour. A. M. A.*, June 21, 1913, p. 1957.)

LUMINAL TABLETS, 1½ GRS.—Each tablet contains luminal 0.1 gm. Merck & Co., New York. (*Jour. A. M. A.*, June 21, 1913, p. 1957.)

LUMINAL TABLETS, 5 GRS.—Each tablet contains luminal 0.3 gm. Merck & Co., New York. (*Jour. A. M. A.*, June 21, 1913, p. 1957.)

EMETINE HYDROCHLORIDE.—Emetine Hydrochloride is the hydrochloride, $C_{30}H_{44}N_2O_5.2HCl.2H_2O$, of an alkaloid found in ipecac. It occurs as a white crystalline powder, soluble in water yielding a neutral solution. Emetine Hydrochloride acts similarly to ipecac but is relatively more nauseant and less emetic, and causes relatively less renal irritation, but more cardiac depression. Emetine Hydrochloride in the form of injections has been reported to be of especial value in amebic dystentery.

EMETINE HYDROCHLORIDE, MERCK.—Merck & Co., New York.

AMPULS EMETINE HYDROCHLORIDE, MULFORD.—Each ampul contains emetine hydrochloride 30 mg. H. K. Mulford & Co., Philadelphia, Pa. (*Jour. A. M. A.*, July 5, 1913, p. 27.)

ACNE VACCINE.—For description of Acne Vaccine see N. N. R., 1913, p. 221. Greeley Laboratories, Inc., New York City.

COLON VACCINE.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Greeley Laboratories, Inc., New York City.

PYOCYANEUS VACCINE.—For description of Bacillus Pyocyaneus Vaccine see N. N. R., 1913 p. 222. Greeley Laboratories Inc. New York City.

GONOCOCCUS VACCINE.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Greeley Laboratories, Inc., New York City.

MENINGOCOCCUS VACCINE.—For description of Meningococcus Vaccine see N. N. R., 1913, p. 223. Greeley Laboratories, Inc., New York City.

PNEUMOCOCCUS VACCINE.—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Greeley Laboratories, Inc., New York City.

STAPHYLOCOCCUS ALBUS VACCINE.—Greeley Laboratories, Inc., New York City.

STAPHYLOCOCCUS AUREUS VACCINE.—For description of Staphylococcus Vaccine see N. N. R., 1913, p. 225. Greeley Laboratories, Inc., New York City.

STREPTOCOCCUS VACCINE. — Greeley Laboratories, Inc., New York City.

STREPTOCOCCUS ERYSIPELATIS VACCINE.—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. Greeley Laboratories, Inc., New York City.

TYPHOID BACILLUS VACCINE.—For description of Typhoid Bacillus Vaccine see N. N. R., 1913, p. 227. Greeley Laboratories, Inc., New York City.

TUBERCULIN B. E.—For description of New Tuberculin, Koch. Bacilli Emulsion ("B. E.") see N. N. R., 1913, p. 233. Greeley Laboratories, Inc., New York City. (*Jour. A. M. A.*, July 5, 1913, p. 27.)

DIPLOSAL.—Diplosal is the salicylic ester of salicylic acid, $HO.C_6H_4COO.C_6H_4COOH$. It is white, almost tasteless and almost insoluble in water. While diplosal is insoluble in dilute acid, it is soluble in alkaline liquids with gradual liberation of salicylic acid; accordingly, it passes the stomach unchanged, but is readily absorbed in the intestine. Diplosal may be used where salicylic acid or salicylic acid derivatives are indicated. It is marketed as a powder and in tablets.

DIPLOSAL TABLETS, 7½ GRS.—Each tablet contains 0.5 Gm. diplosal. Merck & Co., New York (*Jour. A. M. A.*, July 12, 1913, p. 121).

The Truth About Medicines

It is the purpose of this department to encourage honesty in medicines, to expose frauds and to promote rational therapeutics. It will present information regarding the composition, quality and value of medicaments, particularly as this is brought out in the reports of the Council on Pharmacy and Chemistry and of the Chemical Laboratory of the American Medical Association.

Respirazone.—The manufacturers of Respirazone—The Tilden Company—publish an incomplete and therefore meaningless "formula." It is said to be composed of "Iodid and Bromid of Potassium, Helianthus Annuus [Sunflower], Ipecacuanha, Lobelia Inflata [Lobelia], and Leonorus Cardiaca [Motherwort]." Taken even at its face value, Respirazone evidently is a nostrum of the shot-gun prescription type, containing, as is usually the case, some obsolete or worthless drugs. The unreliability of the Tilden Company has been shown by the examination in the A. M. A. Chemical Laboratory of "Hydrocyanate of Iron, Tilden," and by the prosecution by the federal government for misbranding its "Febrisol." (*Jour. A. M. A.*, June 14, 1913, p. 1899).

Staphylococcus Vaccine. — A pure culture of Staphylococcus aureus, recently isolated, should be used for the preparation of this vaccine. The "polyvalent" vaccine strains consisting of a mixture of different staphylococci have not been found superior to that of S. aureus, alone. The stock vaccine has proved useful in the treatment of chronic furunculosis, sycosis and eczema. It is less valuable in the treatment of acne. (*Jour. A. M. A.*, June 21, 1913, p. 1955.)

Streptococcus Vaccine.—The field of usefulness of stock vaccine of Streptococcus is limited. This is due to the large number of strains and varieties which exist. The use of "polyvalent" vaccines is of no avail. While awaiting response to the stock vaccine, the preparation of an autogenous vaccine should be begun. The stock vaccine should be made from Streptococcus pyogenous. (*Jour. A. M. A.*, June 21, 1913, p. 1955.)

Thiocol and Syrup Thiocol, Roche.—Seven years ago the Council on Pharmacy and Chemistry accepted Thiocol, potassium guiacol sulphonate, for inclusion with New and Nonofficial Remedies and more recently also a preparation of it, Syrup Thiocol, Roche. Recently the Council was advised that the product, in the form of a syrup called Sirolin, was being advertised to the public, both in this country and abroad under grossly exaggerated claims. In view of the well-established fact that the most important of all factors in the cure of consumption consists in an early and accurate diagnosis, followed by general treatment, the Council considers that the advertising of a syrup of Thiocol, under the name "Sirolin," involves not merely a serious infringement of its rules, but a menace to the public. After submitting the facts to the manufacturers, the Council voted to delete Thiocol and Syrup Thiocol, Roche, from New and Nonofficial Remedies. (*Jour. A. M. A.*, June 21, 1913, p. 1974.)

The Sarsaparilla Fetish.—Twenty years ago sarsaparilla was regarded by the medical profession as a remedy of value. To-day it is never prescribed by the discriminating physician — although it is still one of the standard ingredients in many worthless "patent-medicines." Replying to a request to furnish a formula for a "compound extract of sarsaparilla" the Druggists' Circular for May says: "We can, but know of no reason why we should, and do not believe that we shall." After recommending the separation of the nostrum business from that of the pharmacist's vocation it is suggested: "Fakers *will* fake; they don't seem to care; but druggists, as followers of an honorable calling, cannot afford to play grim jokes on trustful seekers after health. (*Jour. A. M. A.*, June 21, 1913, p. 1975.)

Bacterial Vaccines.—A discussion of the indications and limitations of bacterial vaccine therapy is presented by a committee appointed by the Council on Pharmacy and Chemistry. Vaccine therapy is a highly specialized field of medicine whose successful pursuit calls for a particular training in bacteriology, immunology and clinical medicine. The therapeutic possibilities of vaccine therapy have been exaggerated. The promiscuous use of the stock bacterial vaccines of commerce in the treatment of acute and chronic infections is an irrational procedure. Ready-mixed commercial vaccines should be abolished. In cases suitable for bacterial therapy, autogenous vaccines are with few exceptions superior. Autogenous vaccines should be prepared by those in touch with the patient and not through the agency of remote laboratories. (*Jour. A. M. A.*, June 28, 1913, p. 2046.)

Physicians and the Pharmacopoeia.—Believing that it is the province of the medical profession to designate the drugs that shall be included in the Pharmacopoeia, the Section on Pharmacology, at the recent meeting of the A. M. A., adopted the following resolution: "Resolved, That the section request the House of Delegates of the American Medical Association to urge on the Committee of Revision of the Pharmacopoeia of the United States that the selection of articles to be included be left to the Committee on Scope, in which the medical profession has a majority representation, rather than to the Executive Committee, which represents mainly the pharmaceutical profession, and which has overriden half the changes advocated by the Committee on Scope." The resolution was endorsed by the House of Delegates. (*Jour A. M. A.*, June 28, 1913, p. 2086.)

Pure Drugs.—With a view of emphasizing the need of a more vigorous enforcement of laws, federal and state, relating to pure drugs, the Section on Pharmacology at the recent meeting of the A. M. A. adopted the following motion: "Resolved, That the Section on Pharmacology and Therapeutics requests the House of Delegates of the A. M. A. to bring this matter to the attention of the proper federal and state authorities, and urge on them the need for more energetic and effective action in this direction." The motion was endorsed by the House of Delegates, which also advised that the matter of securing the enforcement of state laws should be taken up by the individual state associations. (*Jour. A. M. A.*, June 28, 1913, p. 2086.)

The Council on Pharmacy and Chemistry.—Torald Sollmann reviews the preliminary work of the Council on exposing the abuses which had crept into the exploitation and marketing of proprietary medicines and outlines its present efforts to bring about a more rational use of medicines, as illustrated by the issuance of a book on "Useful Remedies" and publication of a series of articles on the possibilities and limitations of vaccine therapy. In discussing the results of the work, Sollmann points out that while conditions are not as they should be, they have improved vastly. Secret nostrums, worthless remedies, blatant advertisements and extravagant claims have not been suppressed and while some frauds have sunk into oblivion others have arisen. It is significant, however, that new nostrums are not appearing at the former rate. Remedies are used with more discretion. Testimonials of worthless drugs are not given with the liberality by careless, if well-meaning phy-

sicians; the tone of the advertisements has become much less extreme, the claims much more conservative. All this means that the profession is more critical, less inclined to believe that the latest advertised fal must be best; less reliant on biased manufacturers as the exclusive source of therapeutic information. The interest in exact therapeutic observation and experiment is much greater. The teaching of these subjects in our medical schools has vastly improved. (*Jour. A. M. A.*, July 5, 1913, p. 5.)

Carelessness in Pharmacy.—M. I. Wilbert tabulates the reports of federal and state authorities on the quality of pharmaceutical products found in pharmacies. The large proportion of unsatisfactory products found he ascribes to indifference or carelessness engendered by the countless variety of medicinal preparations which the pharmacist must keep in stock. He believes that in a shop devoid of "side-lines," that is, equipped with the necessary analytical apparatus, it would be possible to exercise efficient control over a reasonable number of well-defined medicaments. He thinks that a more restricted materia medica will do much to improve the quality of drugs (*Jour. A. M. A.*, July 19, 1913, p. 189).

Toxic Effect of Luminal.—Two cases are reported which seem to show that the use of Luminal is likely to lead to some difficulty when repeated doses are given. In the cases reported the action of the drug did not make itself manifest until an accumulative reaction had set in, which then produced untoward symptoms. The maximum dose, 0.8 Gm., given by the manufacturers, should not be exceeded (*Jour. A. M. A.*, July 19, 1913, p. 192).

Keeping Qualities of Digitalis and Its Preparations.—The strength of digitalis and digitalis preparations depends on their keeping qualities and on the manner in which these have been treated or prepared. As the crude drug varies considerably, digitalis preparations should be made from physiologically assayed drugs. Fluidextract of digitalis is difficult to prepare and generally unreliable, as is also the pseudo-tincture made therefrom. Preparations containing little alcohol, as the infusions, are likely to deteriorate. The low alcohol content of digitalis may explain its variability. The wide-spread view that digitalis leaves, fluidextract and tincture of digitalis are prone to rapid deterioration is unfounded (*Jour. A. M. A.*, July 19, 1913, p. 202).

Misbranded Drug Preparations.—The federal authorities have issued "Notices of Judgment" for misbranding under the Food and Drugs Act in regard to the following: Denton's Healing Balsam, Allen's Compound Extract of Damiana, Hamburg Stomach Bitters, Dr. Bennett's Wonder Oil, and Pale Orange Bitter (*Jour. A. M. A.*, July 19, 1913, p. 211).

Casoid Flour.—J. P. Street having stated that Casoid Flour, an article accepted for New and Nonofficial Remedies, contained 2.2 per cent. carbohydrates, the secretary of the Council on Pharmacy and Chemistry states that the article was free from sugar and starch when accepted by the Council, and that a specimen recently examined in the Association's laboratory was also found free from sugar and starch (*Jour. A. M. A.*, July 19, 1913, p. 212).

Nutrient Enema.—The daily urinary nitrogen output of patients receiving enema of eggs or milk "peptonized" a few minutes failed to give evidence of more than traces of absorbed protein products. Amino-acids prepared from milk by digestion for twenty-four hours with a vigorous pancreatic enzyme were apparently well absorbed. Dextrose was absorbed better than lactose and checks the losses due to inanition. For patients suffering from gastric ulcer, useful enemas can be prepared by vigorous pancreatic predigestion of milk, with subsequent addition of 5 per cent. of dextrose (*Jour. A. M. A.*, July 12, 1913, p. 123).

The Toxicity of Diplosal.—Dr. John MacLachlan reports clinical tests which show that, contrary to the claim of the manufacturer, Diplosal, if given in the same manner as other salicylates, produces the same symptoms of toxicity and with equal severity. The drug was administered by mouth in capsules. The tests show that not only is Diplosal toxic, but smaller doses suffice to produce the toxic effects than are required with sodium salicylate. While the average toxic dose for sodium salicylate was found to be 190 grains, the toxic dose of Diplosal was found to be 92.2 grains (*Jour. A. M. A.*, July 12, 1913, p. 116).

Diplosal.—Diplosal, salicyl-salicylic acid, has been marketed with the claim that it does not produce gastric and other "toxic" effects of salicylic compounds. As this claim was questionable, Dr. John MacLachlan made, for the Council on Pharmacy and Chemistry, a series of clinical tests which showed that Diplosal produced the toxic as well as the antirheumatic effects in approximately half the dose of sodium salicylate. A similar series of tests made in Germany for the manufacturer of Diplosal also showed toxic effects, but from them it appeared that the toxicity was less than that of sodium salicylate. The manufacturer of Diplosal having agreed to give publicity to the results of Dr. McLachlan, as well as to those obtained in Germany, the Council voted to accept Diplosal for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, July 12, 1913, p. 121).

Serum Treatment of Meningitis.—After years of study the Rockefeller Institute has issued a report on the treatment of epidemic meningitis. From the available records of the mortality of the epidemics which prevailed in the United States and Canada in 1904 to 1909 and in the winters of 1911 to 1913, the record of fatalities is above 70 per cent. Similarly the epidemics in foreign countries have given a death rate above 70 per cent. The analysis of the results in 1,300 cases treated with serum supplied by the Rockefeller Institute shows that the mortality of epidemic meningitis can be greatly reduced by the serum treatment. While the average mortality during the pandemic was 70 per cent., that in the serum treatment cases was about 30 per cent. The success of the treatment depends on the age of the patient and the period of the disease when the subdural injections are begun (*Jour. A. M. A.*, July 26, 1913, p. 281).

Enesol.—Enesol has been claimed to be a salicyl arsinate of mercury, a molecular combination of monomethyl arsinic acid and a double salicylate of mercury and sodium, but no definite formula for the compound has been furnished. Enesol was considered by the Council on Pharmacy and Chemistry and refused recognition because the origin and composition were not given, because the manufacturer had made misstatements regarding the identity of the preparation, and because the advertised composition did not agree with that found by analysis in the Association's laboratory (*Jour. A. M. A.*, July 26, 1913, p. 293).

Clinical Effects of "Natural" and "Synthetic" Sodium Salicylate.—A critical study of the literature, a pharmacologic investigation and comprehensive chemical analyses have shown that the claim for superiority of the "natural" sodium salicylate over the "synthetic" kind is not warranted by the evidence. While these investigations all indicate that no difference exists between the two varieties of sodium salicylate, it was agreed that clinical tests were required definitely to decide the point. Accordingly the Council, with the aid of clinicians of recognized standing with hospital facilities at their disposal, undertook a comprehensive clinical comparison of the effects of the two kinds of sodium salicylate. The results of this investigation have been compiled by Dr. A. W. Hewlett and they show that "natural" and "synthetic" sodium salicylate are indistinguishable so far as their therapeutic and toxic effects on patients are concerned (*Jour. A. M. A.*, Aug. 2, 1913, p. 319).

Book Notices

The Practical Medicine Series, Volume IV. Gynecology, edited by E. C. Dudley and H. M. Stowe. Series 1913. Cloth. 229 pages. The Year Book Publishers, 327 La Salle Street, Chicago, Ill. Price, $1.35. Series price, $10.00.

The year's progress in gynecology is covered in a satisfactory manner and the premises laid down in various papers published during the year are constantly abstracted and commented on. The work should prove of value to the practitioner, for it will enable him to remain conversant with the progress that has been made in this specialty.

The Practical Medicine Series, comprising ten volumes on the year's progress in Medicine and Surgery. Volume III. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, M.D.; H. A. Andrews, M.D.; Gustavus P. Head, M.D. Series 1913. The Year Book Publishers, 327 La Salle Street, Chicago, Ill. Price, $1.50. Series Price, $10.00.

The general practitioner desirous of remaining conversant with the progress made in the diseases of the specialty to which this volume is devoted will find in this edition much of profit, practicability and instruction. The work is one that will enable the busy doctor to remain in touch with this specialty and should prove to be of great assistance. It has covered the field rather thoroughly and the important subjects are well handled.

Diet Lists of the Presbyterian Hospital, New York City. Compiled, with notes, by Herbert S. Carter, M.D., assistant visiting physician to the Presbyterian Hospital, associate in medicine at Columbia University, etc. 12mo of 129 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $1 net.

Dietetics deservedly occupies a prominent place in the treatment of the sick. It merits more attention than is frequently given. The needs of a patient laid up with a broken leg and one recovering from an acute wasting or infectious disease are different. What shall we feed the patient? This little book answers the question very, very satisfactorily and efficiently. It will answer it for the physician very readily and without the necessity of wading through page after page of the text. A welcome and a very valuable addition to a physician's library, or rather, desk reference books, is what this Diet List should prove. You must see it to appreciate it and seeing it, you will want it. You cannot invest a dollar to better advantage.

Laboratory Methods, with Special Reference to the Needs of the General Practitioner. By R. G. R. Williams, M.D., and E. G. C. Williams, M.D. With introduction by Victor C. Vaughan, M.D., LL.D. Second edition, Cloth, 210 pages, 43 engravings. C. V. Mosby Co., St. Louis, Mo. Price, $2.50.

As a rule the general practitioner is not prepared to make elaborate chemical tests and examinations. It is not presumed that the practitioner shall attempt every investigation or laboratory examination. There are, however, many comparatively simple examinations, which may be made by him. This volume gives to the general practitioner simple methods and apparatus for the conducting of these laboratory analyses. Only the best tests are given. The volume also shows how the general practitioner can, at a very small cost, equip a laboratory in which he can do most excellent work. The reviewer is pleased to commend the work and the form in which it is gotten out. It is a valuable laboratory guide; up to date and merits a cordial reception.

Massage — Its Principles and Technic. By Max Bohm, M.D., of Berlin, Germany, edited, with an introduction, by Charles F. Painter, M.D., professor of Orthopedric Surgery at Tuft's Medical School, Boston. Octavo of niney-one pages, with ninety-seven illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $1.75 net.

Physical therapeutics should be employed more than it is. We are not securing for our patients the benefits they might receive, because many of us do not know of the advantages that are inherent in these various physical therapeutic measures. This volume will enable the reader to become familiar with the technic of massage. The technic is exactly that which is employed in Hoffa's clinic. It is amply and clearly illustrated. The principles are described step by step. The book is of value to physicians, nurses, and those pursuing courses in medical gymnastics. We are making a mild statement when we say: this volume cannot but be of incalculable value to every possessor and as such merits the earnest consideration of every practitioner to the extent that he purchase it, study it and apply its teachings.

Blood-Pressure. From the Clinical Standpoint. By Francis Ashley Faught, M.D., of the Medico-Chirurgical College, Philadelphia. Octavo of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Price $3 net.

The last few years have marked a rapid rise in the clinical value of the sphygmomanometer. This instru-

ment is now a part of the armamentarium of the physician. It is therefore proper that a book, gotten out in concise form as this one is, giving a résumé of the clinical and experimental work and the pith of the medical literature on the subject of blood-pressure should make its appearance at this opportune time. He who desires to use the pressure instrument and interpret its readings must have in his possession the details, facts, principles and diagnostic interpretations, all of which may be secured by the study of this volume. Every relation of blood-pressure to disease and abnormal conditions is well discussed and clearly enunciated. The progressive practitioner will find in this work a book that he will do well to secure and with which he will be enabled to make correct deductions from his blood-pressure observations.

SURGICAL OPERATIONS WITH LOCAL ANESTHESIA. By Arthur E. Hertzler, M.D., Surgeon to the Halstead Hospital, Halstead, Kan., and to the Swedish Hospital, Kansas City, Mo. 250 pages. Cloth. Illustrated, marginal reference notes. Surgery Publishing Company, 92 Williams street, New York, N. Y. Price, $2.00.

The surgeon and general practitioner who works without the advantages of hospital facilities, as well as he whose minor surgery is done in his private office or at the home, will find in this work much useful and practical information. Local anesthesia is being employed more and more frequently, and as its advantages become more apparent and thus appeal to the good judgment of the surgeon, definite technic is being developed and definite indications for its employment are being pointed out.

To him who desires to become familiar with this technic this volume should prove of estimable value. It covers every phase of the subject in detail and imparts all the necessary knowledge requisite for one who desires to employ local anesthesia effectively and safely.

This volume should prove to be a valuable addition to every practitioner's library.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners. Edited by H. W. Cattell, M. D., Philadelphia. Volume ii, twenty-third series, 1913. J. B. Lippincott Company, Philadelphia. Cloth. Price $2.00.

Maintaining its high standard and value, this volume of the International Clinics merits a very cordial reception. Of especial interest is the article on the Therapeutic Indications for Antitoxins, Serums and Vaccine. This is a subject that is rapidly becoming of vital importance and he who is desirous of knowing the important indications for serum therapy will find Dr. Illman's article very instructive, as is also the article on Therapy Under Modern Biology. The review of A Year's Fracture Work, covering 299 cases, will find particular favor with those whose practice contains a very large number of fracture cases. To review the work would necessitate considering every article. This the reviewer has not the space for. The series is commended to every one of our readers. You cannot well miss them.

PROGRESSIVE MEDICINE. A quarterly digest of the Advances, Discoveries and Improvements in the Medical and Surgical Services. Vol. xv, No. 2, Whole No. 58. Herbert Amory Hare, M.D. June, 1913. Lea & Febiger, Philadelphia. $6.00 per annum.

This volume of this valuable and popular publication is devoted to Hernia, Surgery of the Abdomen, Gynecology, Diseases of the Blood, Diathetic and Metabolic Diseases, Diseases of the Spleen, Thyroid Gland, Nutrition, and the Lymphatic System and Ophthalmology.

To one desirous of remaining abreast of the progress made in the above branches of the work of the profession, we cannot conceive how he can afford to be without this series. Every article is of value and extremely to the point, giving the reader a condensed opinion on each subject. The chapter on hernia and the surgery of the stomach and intestines deserves especial mention, as does also the chapters on cancer of the uterus and the blood. The forty pages devoted to opthalmology, edited by Edward Jackson, cannot receive anything but commendatory praise. A progressive volume in every sense, that appeals at once to the progressive surgeon or practitioner.

MASSAGE, MANUAL TREATMENT, REMEDIAL MOVEMENTS, HISTORY, MODE OF APPLICATION AND CONTRA-INDICATIONS. By Douglas Graham, M.D., Boston, with chapter on Massage of the Eye, by A. Darier, M.D., Paris. Fourth edition; 75 illustations; 566 pages. Cloth. J. B. Lippincott Co., Philadelphia.

The success attendant on the first three editions of this work has called forth a fourth edition; thoroughly revised, modern and maintaining many commendatory features of former editions as well as adding new and valuable features. This is a work which we wish every practitioner would read. Mechanotherapy and massage are distinct, valuable agents in the treatment of disease. They meet definite indications and accomplish definite ends. Conversant with the principles of massage on the part of the individual doctor and the institution of massage treatment in given conditions would bring about a movement that would do away with many of the new cults that have arisen. This book is of scientific merit and much practical use. It is full of clearly expressed directions to guide the uninitiated. Of all books on the subject, this one is probably the best. Again we say, it should be read by every physician in Michigan.

DISEASES OF THE EYE. By George E. deSchweinitz, M.D., professor of Ophthalmology in the University of Pennsylvania. Seventh edition, thoroughly revised. Octavo of 979 pages, 360 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $5 net. Half Morocco $6 net.

The seventh edition of this work will be welcomed by the profession, who have always known it to be a book which they could not well do without. This revision makes it more valuable than ever. Its various chapters have been revised carefully and a certain amount of new matter has been incorporated. Thus, special paragraphs on the following subjects appear for the first time: Schiötz's Tonometer; Ophthalmodiaphanoscopy; Sporotrichosis of the Eyelids and

Conjunctiva; Widmark's Conjunctivitis; Rosacea Keratitis; Epithelial Dystrophy of the Cornea; Marginal Degeneration of the Cornea; Blue Sclerotics; Progressive Atrophy of the Iris Layers; Exudative Retinitis (Coat's disease); Angiomatosis Retinae (von Hippel's disease); Cysts of the Retina; Blindness from the Arylarsonates; Siegrist's Method of Local Anesthesia; Simple Trephinning of the Sclera (Elliott's operation); Reese's Muscle Resection Operation; Toti's Operation (Dacryocystorhinostomia).

Wherever necessary, due reference has been made to recent uses of vaccine therapy; for example, in gonorrheal iritis, to the indications for the administration of salvarsan in ocular disorders, and to the septic (bacterial) origin of iritis and uveitis. In brief, an endeavor has been made to include the important discoveries and observations of the last three years.

DISEASES OF THE STOMACH, including Dietetic and Medicinal Treatment. By George Roe Lockwood, M.D., professor of Clinical Medicine in Columbia University, and attending physician to Bellevue Hospital, N. Y. Cloth; 624 pages; 126 engravings; 15 plates. Lea & Febiger, Philadelphia.

This is a work that is based on a large clinical experience and is a compilation of the observations made by the author. It is a description of the diseases of the stomach as he has happened to see them. When his observations are at variance with the accepted teachings, the fact is noted, the opposing views are given fair discussion, but the the case analysis has not been changed to comply with the accepted pre-existing views. It therefore makes this a work of exceptional value and places before the reader a large series of cases and histories and findings. It is not a compilation of the opinions of others, but an analysis of the diseases of the stomach as they have been seen by the author. This, then, should make the work of particular value to the practitioner and also to him who devotes his entire time to the treatment of gastric diseases. Dietetic and medicinal treatment is carefully considered and fully discussed in every instance. The publishers are deserving of a large patronage for producing such an excellent volume.

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES. By eminent American and British authors. Edited by William A. White, M.D., superintendent of the Government Hospital for the Insane, Washington, D. C.; professor of Nervous and Mental Diseases in the Georgetown University and in the George Washington University; lecturer on Mental Diseases in the U. S. Army and U. S. Navy Medical School, Washington, D. C., and Smith Ely Jelliffe, A.M., M.D., Ph.D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post Graduate Medical School and Hospital; visiting neurologist to the City Hospital; consulting neurologist to the Manhattan State Hospital, New York, N. Y. Two octavo volumes, containing about 900 pages each, illustrated. Per volume, cloth, $6, net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

The second volume of this unique work has made its appearance within a few weeks after the publication of the first. It deals with matters of great interest and extreme practical value, and its pictorial department is fully up to the high standard of the text. Among the many subjects discussed are the Neuralgias and Neuritides, Injuries of the Peripheral Nerves, Muscular Atrophies and Dystrophies, Headaches, Spasmodic Disorders, Epilepsies, the Meningitides, Syphilitic Diseases of the Nervous System, the Use of Salvarsan and Neosalvarsan, Cerebral Hemorrhage, Embolism and Thrombosis, Disorders of Expression, Stuttering and Diseases of the Cranial Nerves and Lesions of the Spinal Cord, Diseases of the Optic Thalamus, Midbrain and Cerebellum, Paralysis Agitans and Multiple Sclerosis, the Toxemias of the Dangerous Trades and of Drugs, and the Surgery of the Brain and Spinal Cord. In these two volumes the practitioner now has, in the most convenient form, the latest and best knowledge concerning a very puzzling and difficult class of cases. We know of no work that so fully meets the needs and requirements of the general practitioner.

DISEASES OF THE EAR. By Phillip D. Kerrison, M.D., Professor of Otology, New York Polyclinic Medical School and Hospital; Junior Aural Surgeon to the Manhattan Eye, Ear and Throat Hospital; Aural Surgeon to the Willard Parker Hospital for Infectious Diseases, etc. 331 Illustrations in the Text and two full pages in color, 1913. J. B. Lippincott Company, Philadelphia and London. Price, $5.00.

Otology has probably witnessed more advance in the past decade than any other branch of medicine, and is progressing now even more rapidly. Aurists no longer confine themselves to the tympanum and mastoid. Study of the labyrinth has added a large field; autogenous vaccines have added their problems, and meningeal and brain surgery have increased the field of the aurist to no small extent. Kerrison has attempted to present the diseases of the ear in the light of our recent advances and present tendencies. He has eliminated many descarded but historically important theories and methods of treatment, and has substituted such of the new as has been found of value.

Anatomy and physiology are allotted forty pages. Examinations of the patient and functional examinations of the ear are important and occupy fifty-six pages, the methods and instruments used being carefully described.

The labyrinth occupies sixty-two pages of text and is illustrated by forty cuts. The treatment is comprehensive. Speaking of the treatment of diffuse suppurative labyrinthitis Kerrison distinctly points out that the disease *per se* is not fatal; that fatal endings are due to intracranial complications, and our diagnostic skill should be directed to determining whether meningeal involvement is imminent.

The chapters an surgical treatment are especially well illustrated both as to instruments necessary, and the steps of the operation. Brain surgery, tuberculosis, syphilis, non-suppurative diseases of the labyrinth, adenoids, salvarsan, vaccine and serum therapy, dental lesions and deafmutism all receive appropriate attention.

In the appendix is considered aural diseases in relation to life insurances, artificial aids to hearing, case histories, etc. A most complete and valuable book.

The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, OCTOBER, 1913 No. 10

Original Articles

DISTRICT SUPERVISION OF PUBLIC HEALTH*

PRESIDENT'S ANNUAL ADDRESS
WALTER HULME SAWYER, M. D.
HILLSDALE, MICH.

The adaptability of human living to changing circumstances and new environment has been and continues to be on trial. In the long process of evolution and survival of the fittest, artificial agencies have played little part.

Primitive man had few and simple problems. His dangers were revealed and met in open combat. Enemies demanding of him care, ingenuity, and resource menaced and developed him but did not break the harmony of his life with his surroundings. As he grew in numbers and in refinement of mind and habits, the maintenance of this harmony was increasingly difficult. He was forced to abandon his nomadic life and began to breed his own destroyers. His existence became more and more complicated and dependent upon the development of his science and his art. The operation of the great law of necessity has forced the determination by him of cause and effect. In his pursuit of insidious and unseen foes he has delved in the realms of chemistry and biology, compiled statistics, recorded collateral data, and drawn conclusions, until in his painstaking course, he has brought to light some new and salient facts which are worthy of a place in the foundation of his social structure.

While the basis of the known and fixed is constantly broadening, the need of it is more and more urgent. The undertakings and accomplishments of recent years are marvelous and encouraging. The deep interest manifest in eugenics, pathology, and sanitation has a most hopeful portent. The drift toward the rapids of deterioration is being resisted with all the strength and resource of the race. To what extent a growing population with the keener competition for existence can overcome devasting and limiting tendencies only the future can make reply.

THE EDUCATION OF THE MASSES

If our civilization is to be permanent and progressive the first requisite is the education of the masses. The people must be taught to reason and to decide, calmly and intelligently, vital questions. They must be able to be convinced by argument and to support sane leaders and corrective measures. Nothing can be done in the face of an adverse or indolent public sentiment, incapable of being aroused to serious consideration or right action.

Expediency and established customs must recede before far reaching laws of living and government. Selfish purposes and individual ends must be subjected to the common welfare.

THE VALUE OF STATISTICS

During the last decade there has been a marked improvement in the methods of gathering statistics. Records are kept over a wider area, they conform more nearly to a standard and thus are more reliable and a surer basis from which to draw conclusions. As in the industrial world a system of cost-keeping is essential to the successful conduct of business, so statistical data are essential to progress in the conservation of health.

With a growing appreciation of the value of this information, the states are one after another falling in line and supplying to the general government the required facts in accordance with a prescribed schedule and rules making them available for study and reform.

PREVENTIVE MEDICINE

The importance of preventive medicine is being recognized and the medical man has placed upon his own shoulders the burden of being a pioneer in this field. With foresight and courage he has borne the responsiblity, made the sacrifices. and led the van. He has raised his own standards and fitted himself for more exacting service without hope of reward except in the consciousness of duty well done.

The dawn of a brighter day is at hand and tremendous strides are being made toward a fundamental organization for research and administration in sanitation. Why we have waited so long upon this result it is difficult to conceive. Starting as a camp follower in the march of progress, public hygiene has been assigned to a position in the fore front of the

* Delivered before the First General Session of the 48th Annual Meeting of the Michigan State Medical Soicety held at Flint, Mich., Sept. 4-5, 1913.

fighting line. The examples of its achievements have astonished and drawn the attention of society to the possibility of this agency as well as its necessity if our conception of advancing civilization is to be realized.

It is probable that the time is near at hand when a bureau of Public Health will be instituted at Washington with Cabinet representation. Congress will sooner or later be convinced of the beneficence of such a department. The measure known as the "Owen Bill' should have the support of all classes of our people and will as soon as they can be made to understand the need of such a central organization in solving the problems which confront us. This department would bring together the scattered instrumentalities for investigation, sanitation, and education, the co-ordinating of which would give to this governmental function an importance and effectiveness that the circumstances demand.

The lack of interest in a matter of such vital import is many times disheartening and exasperating. Physicians are not always blameless of this charge of lethargy. Engrossed in their arduous tasks, they many times lose sight of a greater purpose to which their lives are consecrated.

A wonderful change has taken place in the last quarter of a century to which all former ages so abundantly contributed. Out of the recorded experience and observation of those who had wrought before has been assembled a working hypothesis which is being put to test. Disease is preventable, and prevention is better than cure.

Scientific medicine has laid bare so many mysteries and in numerous instances pointed so positively the path toward the goal of health and race betterment that we are beginning with confidence to reason from cause to effect and to emphasize the pursuit of fundamental principles rather than to rely wholly upon expericism and expediency.

The health and happiness of the individual is largely dependent upon the relation with others over whose conduct he has little control. It is a responsibility which organized society owes to him to provide all the protection consistent with a reasonable liberty and an eye single to the common good in which benefit each is a like participant. Wise legislation is with certainty demonstrating its value in a decreasing death rate and in life prolongation. The immense economic saving of this result is but little understood. The charge upon society due to preventable sickness and death runs into astonishing figures. How inspiring it is to recall that some of the great scourges of the human family are nearly obliterated by preventive means! Leprosy, typhus fever, cholera, the plague, yellow fever, small-pox, malaria, rabies. diphtheria, and typhoid fever are approaching extinction. One after another diseases are being added to this number until the entire field will be ultimately covered. The conquest of tuberculosis is waging and the day is not far distant when such an affliction will be credited to rare accident or reprehensible carelessness.

Men of vast fortunes and schooled to a broad view of world affairs have grasped the key to progress and have made liberal provision for medical research. Others, with the invaluable asset of trained minds and skilled technic, have contributed in fuller measure. Indeed, this spirit of altruism pervades modern civilization. The materials are at hand out of which to construct a smooth working machine for the preservation of health. Within the next decade marked evolvement of sanitary organization may be anticipated. The time is ripe for it.

DISTRICT SUPERVISION OF HEALTH

In the legislatures of several of the states was recently debated the question of the supervision of health of districts by full time officers. Michigan, Ohio, Indiana, and Minnesota failed to consider favorably such a scheme, while New York, Massachusetts, Pennsylvania, Wisconsin, and North Carolina have adopted this form of health organization. Other states have made a poor attempt in this direction.

It is a significant fact that the Governor of New York deemed the matter of enough moment to appoint a commission to investigate and make report to him a plan for the improvement of the sanitary affairs of the state. He then made the findings of this commission the subject of a special message to the Legislature. He begins his message with the emphatic statement of a fundamental principle:

"One of the first duties of the State is to protect the life of its citizens. There is no more important subject of public administration than public health. The State comes very close home to the individual when it saves him from sickness and even from death. This it can do, does do, and should continue to do in a much larger degree."

He further says:

"Efficient public health administration pays. The motto of the New York City Health Department—'Public Health is purchasable. Within natural limitations, any community can determine its own death rate'—should be made the motto of the State.

"The commissioners' report confirms my impression that there are very great opportunities for wise co-operation of local and State agencies in the protection of health and the saving of life. The fourteen thousand deaths per annum from tuberculosis can be greatly reduced in the near future. The people have determined that tuberculosis must be conquered. Last year deaths from pulmonary tuberculosis were eight hundred twenty-one fewer than the year before. In greater New York the people have decreed that the needless sacrifice of

innocent infant life shall cease. The rest of the State should speedily follow this excellent example.

"It is my opinion that one thousand, one hundred twenty-eight deaths per annum from typhoid fever is at least one thousand too many. Diphtheria, measles, whooping-cough—the deaths from all these causes can be greatly diminished. Not alone by controling these infectious diseases, but also by creating increased interest in the subject of public health, the average of physical vigor, efficiency, and productivity can be greatly increased."

Among the recommendations which the Governor then makes is this one:

"That the State outside of New York City be divided into at least twenty sanitary districts with an expert sanitary supervisor in each, devoting full time to health work."

MICHIGAN'S "AMBERSON BILL."

The Michigan State Board of Health prepared and presented to the last Legislature what was known as the "Amberson Bill." This bill provided for division of the State into sanitary districts according to population and prescribed the qualifications, duties, and salary of the supervising health officer, his relation to the community, and to the State Board of Health. Though this measure had the cordial support of the Governor, it was not favorably acted upon by the law making body. It was evident that the public had not come to an understanding of what has been and can be accomplished by prophylaxis through systematic and intelligent direction and control of health. The numerous examples of reduced sickness and death rates have not made a profound impression or been considered personal.

While we have in this state a more efficient health organization than in most of the states, it is far from satisfactory. Local health boards and local health officers, except in the larger cities, do not meet the needs. The boards are often uneducated and inexperienced in health matters and the officers are so poorly compensated as to resolve this duty into a casual service rather than a continuing one inherent with grave responsibility.

The enforcement of sanitary rules and regulations as laid down by an administrative head is a delegated police power. This police duty depends for efficiency upon subjection to higher authority. A loose relationship of the prime factor to its principal cannot be productive of the best results.

BENEFITS THAT WILL ACCRUE

The proposed plan of district supervision would go a long way toward correcting existing defects. It would impose upon a trained officer, devoting all his time and energy to the work, the responsibility for the health affairs of a definite unit. What is now done in the larger cities would be done in the smaller cities and rural communities. Insanitary conditions in any part of the state endanger every other part and are a matter of general, rather than local, interest.

Laboratories for investigation and report, at present maintained at public expense, would then be better able to fulfil their purpose and contribute to the development of sanitary science. Child life would be more carefully guarded and parents would be instructed as to the importance of early taking advantage of modern methods of correcting congenital and acquired errors. By inspection of the school children public attention would be called to these abnormalities and remedy would follow.

This officer should be charged with the following duties: a frequent survey of his district, the direction of the examination of all school children, an inspection of all sources of disease, education of the people in public health matters, the securing of full and complete registration of births, deaths, and communicable diseases, and the enforcement of health laws and regulations. He should at designated times make report to the State Board of Health the conditions in his district. A false economy is the stumbling block in the way of the passage of such a law. The trifling expense per capita would bring such abundant reward that if this saving were made plain it would appeal to all as an economic necessity. The health laws of a majority of the states make provision for a county health officer, but politics, lack of compensation, requirements and discipline renders this service in large part incompetent and ineffective. Full time, adequate salary, and trained men responsible to higher authority are requisite to success.

The health code of North Carolina provides for county supervision of public health by a full time health officer at a living salary, with close relationship to state authority. The Secretary of the State Board of Health in a recent letter says:

"I think this office is coming around rapidly to the view that a county health officer, elected by county officials and responsible to county officials, is not nearly so valuable, from a public health viewpoint, as one appointed by, responsible to, and under the direction of central authority."

The "Amberson Bill" referred to did not provide for especially trained sanitarians as supervisors. In the first place, the change was thought too radical to be accepted, and in the next place, such men are not available. To meet the coming demand in this field the schools are beginning to offer courses fitting students for this specialty. The University of Michigan gives a degree in Sanitary Engineering. While there is a lack of facilities for practical application and observation to impress and perfect instruction, it is expected that some way will be found to make possible

this supplementary training. In this bill the county supervisor, while elected by a county board from a list of eligibles furnished by the State Board of Health, is also an officer of the state and subject to removal by the Governor for cause.

There were reported in the State last year, one thousand two hundred eighty-four deaths from pulmonary tuberculosis, which is probably less than the actual mortality from this cause. That there were five hundred fifty-one deaths from typhoid fever is approximately true. All deaths from zymotic diseases are theoretically a needless sacrifice. The whole world was shocked by the Titanic disaster and rose in a body to voice its condemnation of those whose carelessness might have caused it, yet society sits by calmly and indifferently while a more tragic drama is being enacted in its midst. This apathy is no longer excusable on any ground. Former uncertainty of means has given way to scientific and practical demonstration.

The decreasing death rate in cities where conditions are less favorable than in the rural districts can only be credited to better sanitation. In the cities of eight thousand and over in New York the deaths per 100,000 from all causes fell from 1,771.5 in 1902 to 1,466 in 1912, while in cities of lesser population, villages and rural communities, the rate increased from 1,404.7 to 1,521.1 during the same period.

In Michigan the mortality rate is about the same for the small cities, villages, and rural communities that it is for the large cities. Unquestionably the rate should be less for the more sparsely populated localities. *If it can be, it should be, and must be.* If by proper care and direction this result can be attained and a marked saving of life and of sickness, with all the attendant distress, hardship, and loss, be effected, why do the people hesitate? The cost would not exceed 15 cents per capita. This expense is insignificant when compared with the benefits it will buy.

There is not a county in the state in which the life saving alone should be, by conservative estimate, from two to five per thousand. In a county of 30,000 population this amounts to from sixty to one hundred fifty lives. A fair value of these lives to the community is $1,700.00 each, or an aggregate of from $100,000 to $250,000 per year. This makes no account of the loss incurred through sickness.

CONCLUSIONS

Our plea is for an organization to take advantage of known and established rules of sanitation and by investigation and accumulated experience increase its usefulness.

The educational campaign must go on, and judging the future by the past, it will bear fruit. Let each feel the task his own and all opposition will shrink and fade before a united front.

It may be of interest to learn that the University of Michigan is inaugurating a Health Service for the welfare of the students and for instruction in all matters pertaining to health and a strong, enduring physique. It is expected that this Health Service will be an example of what can be done by protection and guidance.

The cruel execution of the law of evolution can be resisted and it remains for us with our science and our art to say to what degree. Humanitarian motive walks hand in hand with economic incentive and the future is bright with possibilities.

DISCUSSION OF THE PRESIDENT'S ANNUAL ADDRESS

Hon. Milo D. Campbell, Coldwater.

Gentlemen of the Michigan State Medical Association:

I wish I could express to you my profound appreciation of the invitation extended to me to be present on this occasion.

Society and business are segregating the world over. Associations and Conventions are being held every day, calling those of like occupations together, that they may touch elbows, banquet, and consider means to improve themselves financially and socially.

But never before, in all my experience, have I known any body of professional or business men to make their star theme a measure that would surely impoverish their own fields of labor, that blessing might result to the community. To such a spirit of altruism my hat is off in admiration at this hour.

It is said in German legend, that during the spring days each year Charlemagne returns to his fatherland, going up and down the Rhine, scattering sunshine and blessing upon the fields and vineyards that they may produce abundantly of harvest and fruit. Such seems to be your mission, gentlemen, when you seek to lessen unnecessary sickness, death, misery and expense and to sow the fields of Michigan with health and years and happiness.

To what your honored President has said upon existing conditions and upon the necessity for the enforcement of health laws I cannot add a word.

I have, however, a commonplace thought or two that I wish might be more keenly realized.

Never since the call to Adam "Where art thou" has there been a time when social, health and sumptuary laws, did not require a policeman in the garden. We may pass resolutions and legislatures may enact laws upon these subjects until the crack of doom, and unless officers are appointed to enforce them, they will sleep without waking.

The Federal Government enforces its laws, only, through its secret service. The Sherman law lay, as dead, and covered with dust until within a few years past, secret service men have been put into the field to enforce it. Violation of postal laws, counterfeiting, the white slave traffic, pure food, and nearly every other criminal and penal law of the Federal Government would go unenforced if we waited for voluntary complaints to be made by

private citizens. What Commissioner Helme is doing to expose rotton food stuffs and in cleaning up the "Augean Stables" and factories of the state from which our food comes, is a splendid object lesson of what is needed for the enforcement of health laws.

Canada thistles, hog cholera and diphtheria do not play *solitaire*. They are all catching and the neighbors are interested. But John Jones will never prosecute neighbor Smith for communicating thistles to his farm, cholera to his hogs or death by diphtheria to his children. If such wrongs are ever righted, if such evils are ever obliterated from a community, it must be through independent police officers, armed with law and commissioned to perform their duty without fear of local or political recall. (*Applause.*)

There are some underlying principles in the enactment and enforcement of laws, that ought to be almost axiomatic by this time. We are discovering that this is not a land of liberty nor a land of license, except as those terms harmonize with the rights and liberties of our neighbors.

Law, order and cleanliness must ever be the sheet anchor of this nation. The socialists and anarchists from other lands, the man or the mob who would take the law into his or its own hands by violence, the demagogues who preach class hatred and disobedience of law, the man of wealth who would purchase immunity from law, and the common every day law abiding citizen must all be made to feel the touch or the penalties of law, through the executive and police forces of the state.

And right here let me turn aside long enough to pay my compliments to the Governor of the State. Whether the mine owners of the Upper Peninsula are giving the boys who work underground a square deal, I do not know; but this I do believe, that if necessary, every gun should be called from the armories of the state to preserve order and to prevent threatened violence.

By maintaining order, the Governor neither sympathizes with, nor lends aid to the mine owners, nor to wealth. His heart does not cease to beat for the oppressed, he merely performs his sworn duty to save the state from anarchy and disorder, and I want to pay my humble homage to the Governor for his act, and I'm no Democrat either. (*Applause.*)

Again, we have come to know that health laws are neither automatic nor self-starting; they require cranking. The average friendly neighbor who is elected to the health office in our townships, villages and small cities is generally unfit for the job.

He is too good a neighbor, too warm a friend, or too popular, to make a good health officer. It requires too much heroism in a health officer, just for a dollar and a leather medal, to go out and quarantine his neighbor's family, to order his out house cleaned, his premises renovated and his children vaccinated. It ought to be understood by this time that local health officers, do not and will not as a rule in the very nature of things, perform their duty. Neither would you nor I, under like conditions.

If the health laws of this or any other state are ever enforced, it will be through independent, competent paid officers, making it their sole business and with tenure of office independent of politics. (*Applause.*)

It is not pleasant to figure the value of human life by economic standards. But when every student of experience, of conditions, and of statistics, tells us, that if our health laws were enforced, we could save from two to five lives in every thousand of our population each year; when we are told that for an expenditure of $3,000.00 for a county health officer, we could save from one hundred to three hundred thousand dollars each year in human life alone, that we could also eliminate the untold expense and misery of unnecessary sickness, we are not disposed to shy through sentiment alone at the profit and loss side of the measure.

I know that our legislature is cautiously and wisely halting in the face of increasing taxation and multiplying boards. But while this is true, I confidently believe, that if the patriotic people of Michigan knew that the state was to be infested by a band of brigands and that one life would be sacrificed unless they were repelled by force, that with one voice they would drain the treasury of the state, if necessary in the defense of that life.

Today we are told that death and disease, in command of an enemy of untold numbers, hiding in out-houses and back-alleys, traveling upon railroad trains, swarming in schools, churches and public places, everywhere covert and hiding, are each year destroying, not only one life, but two thousand of our population unnecessarily. No, I do not believe the patriotism of Michigan is dead. It merely needs calling from its sleep.

When the waters of the Atlantic and Pacific shall meet, upon the opening of the Panama Canal, the greatest blessing to the world will not be commercial nor one of engineering accomplishment. It will be the undying conquest achieved by man over fever, pestilence and malaria in that infested tropical zone.

The world will never be able to compensate, to repay, nor to sufficiently honor the men who through toil and martyrdom have made it possible to combat successfully the dreaded contagion that sooner or later comes to threaten every home. (*Applause.*)

In Michigan we are spending twenty millions of dollars each year to educate five hundred and fifty thousand boys and girls, that we may protect the state against their ignorance. Upon no other theory have we a right to tax Sam Jones for the education of Bill Smith's boy.

What is wanted now is but ten cents for each thousand dollars of property in the state that we may safeguard three millions of people against unnecessary sickness and death.

We want a small war budget with which to drive the germs of disease and sickness from the state, or else to confine them to their own red light districts. We want to keep pace with sister states and make Michigan what it can be and ought to be, the health resort of the Nation.

The sweetest things of life are not measured by chain nor by bushel basket. The best treasures are health, love and home ones, and when in these days of peace, we have defended them against swarming enemies that lie in ambush to destroy, we have become the state's best patriots in the defense of home and country. (*Continued Applause*)

Hon. Perry F. Powers, Cadillac.

Ladies and Gentlemen: I did not expect just this moment to be called upon and so had arranged myself for a few moments' preparation, just the sort a man would need for the ordeal that I think is before me. I am not going to use any cheap compliments; I am not going to refer to the fact as to what this assemblage may include or what it may not include, but I do recognize the fact that any man who has an opportunity to stand for a few moments before an organization of this kind, before that which you represent, must give a good reason for his so doing and acting, because they have in some way been permitted to take such a part. I recognize the fact suggested by the address of Dr. Sawyer that some suggestions have been

made here that may be of value if in the same way suggested and brought along even other lines. As a newspaper man it may be possible for me to render a service outside that I could not render here in the discussion of this subject, and I recognize further that I am related to that, that my community is related to that and that those who form a part of that community, those who may not be able by protest or by appeal to become in any way responsible or initial may offer some suggestion on some line of action and be of assistance to you and assistance to that which you seek to bring about.

I have looked through your program; I have examined it from beginning to end with reference to the questions of why you are here, but I do not find the usual business characteristics; I do not find that any time has been given to the question as to fees and the matters of collection, to ways and means of advancing the business purposes of this organization. Indeed, I believe the only financial suggestion contained in the entire program is the name of a Committee man from Dollar Bay. (Applause.) The suggestion has been made as to why you are here. I think that the reading of that program would properly answer that question. The suggestions while they may be new along this particular line, very many of them particularly, are not new. The entire tendency of our present time along lines industrial, along lines commercial, along lines social, along lines in which we have to do in communities of a people as a whole are just in harmony with the splendid words you have heard in your President's address. There is a movement forward; there is some recognition on the part of the men who stand at the top that in some way he is related in a larger and better way than he has ever recognized before to the man at the bottom. Not only does that physical line run down, but in these later days we have come to recognize the social relation, we have come to recognize and believe that which has been expressed by an ideal, many hundreds of years old now, that we are related. You know how well we are related in our physical way. We have come to recognize now that our enjoyments, our betterment, our development, our fullness of life must come in some way to a recognition of the development and fullness of life on the part of the other fellow.

The suggestion made may not be ideal, I do not think it is, "District Supervision of Public Health." We have that in some of our cities in a small way, and sometimes the very pity of it, sometimes the very weakness of it, sometimes the very lack of it has appealed to us most eloquently as to what such a supervision should be, and we recognize I think better than you now know that such a bill as the Amberson bill, such a recognition on the part of that community to the higher virtues of life, that if we had a man who had the ability, a man who had behind him the official power, a man who had the recognition of the community and the state to do the service suggested in the recognition of the precedent of the bill presented, I do not believe the cost per capita would stand in the way. You must not be discouraged along such lines if at first a bill of that kind was not successful; if our members of the legislature, former members of county boards of supervisors, think the cost of it too great, recognize the question of increase of salary in their county and would not stand for a movement of that kind. The fact of the matter is, my friends that the very presentation of it, the very encouragement it did receive, the very fact that such a bill was presented and gained some approval and will probably in the near future be adopted, should give encouragement

Along your lines as upon the lines of others who are entering public service is the same degree of splendid advancement being made There are no other men, no others who are engaged in any sort of activities that relate to their fellow men that I think have the reason to feel the inspiration and the courage and the gladness that comes from the same sort, the same degree of advancement, no others have that, and I believe that recognition of it is along the lines of thought which the public too are recognizing, and that which was suggested as one of the key notes of the address, "Disease is Preventable," is a most eloquent appeal, and as his statement of that which can be done must be done is one which you know cannot fail of recognition. There is something about a man possessed of truth, there is something about a man who knows what he is talking about, there is something about a man who knows he is proceeding in the right direction which makes that man absolutely invulnerable; it is impossible to stop him; it is impossible to hit that which he is persisting and urging for; and when you know as you do that disease is preventable, when you know as you do that you could go into any community in our state with reference to its drainage, with reference to its sewerage, with reference to its poor district, with reference to the condition of its streets, with reference to the conditions of its homes, with reference to the conditions of its wells, that you could make it possible for many men in that community to continue as they are developing, to add to its happiness, to add to its wealth, to add to its development, to add to all the things that make life worth living; when you know that to be true you can convince others it is true. You need not have the slightest fear but what in the end you can put upon the legislative books of the State of Michigan any legislation which you know should be there, and there need not be the slightest discouragement.

Then, there is another most eloquent appeal, in the decreased death rate, in that which you know to be true along that line, in that which has been accomplished. Sometimes we say sarcastically, or seek to our shame to say that there must be something uncanny about the effort of the doctor; the doctor in our own community who is urging hospital work, who is seeking to decrease the death rate, who is seeking to decrease the number of persons in that community who will be sick, to decrease the number of persons who will need your services, and the number of persons who may be expected to pay you fees. It is not quite along the lines of our commercialism; it is not quite along the lines of our industrial development, it is not quite along the lines of that which we believe to be a common human characteristic, and yet we do know it to be true; we have been taught that lesson, I believe constantly, by the men who come out of our universities with their ideals, by the men who in our communities are the leaders; for this you know, gentlemen, there is no meeting in any community in the State of Michigan, no meeting for the welfare of that community, be it business, moral or social, there is no meeting in any community which seeks to make its own town better, which seeks to secure some advantage of the outside world, which seeks in some way to minister to the well-being of that community, but what if there are two doctors in that community one of them is there. And we have come to recognize the fact, those of us who are observing along that line, that it is absolutely true that the effort of the Michigan State Medical Society, the effort of your organization in every way is to decrease the number of cases from which you might be expected to secure fees. You have listened to the cheap jokelets in that line, that you have

recognized possibly every advantage of your services which you are seeking to render, which is not the reason it deserves. Therein lies the danger of many men becoming enthusiasts and they become discouraged by thinking the community is not seeking to recognize what they do; they think as far as they are concerned their life work has failed, yet you know it to be true that no man in this state has in any line, especially the line of this work, contributed the best he can perform, the service which he knows was his duty to perform, and which others could not perform for him, that has not in that community left a name which will not die, and left work which will continue to labor for the benefit of the community for all years after he is gone. We are prone to have such states of mind. There are such states of mind in our own state with reference to medical matters especially. I recognize that there is an ill feeling, that there could be along the lines of our discussions here, that there could be along the lines which you present a danger of its coming to communities; there could be an ill feeling as to the mind, it might not be well for a man to be continually dwelling upon disease, to continually think of the number of atoms in his body that might at some time destroy him, to continue to reflect upon things in a community which makes for bad living, there could be dwelling along such lines that would make life a sort of burden, make the presence and possibility of all of these diseases somewhat nearer than they are. But I do believe, my friends, that so far as your work is concerned there is inspiration, and there is a feeling too in the state of mind which recognizes what has been done, which recognizes that in our community, which recognizes the truth of what has been stated here this morning, which recognizes that so well stated by the Governor of New York with reference to what had been accomplished in his own city and in his own state, recognition of what has actually been done and what you are actually doing, is necessary and essential; is one desirable quality, so far as publicity is concerned. To our state as a whole, to the several communities which we represent here, no value I believe would be greater than the fact they should know exactly what is being accomplished, and I think I can say in behalf of the newspapers of our state that you physicians who have in your proper ways gone about it have secured the co-operation from the newspapers; have found them willing in every way to co-operate with you so far as the well-doing and well-being of the community could be advanced by your work. We recognize too, so far as that is concerned, so far as some of those matters are concerned that have been suggested here, that the danger that did not exist yesterday may exist tomorrow, and along that line I think the appeal which has been made here that the duties of civilization are increasing in these directions we recognize to be true

We recognize again how the leaders of thought in their community, men who are thoughtful along other lines recognize that even the great advancements we are making bring with them social burdens, bring with them questions to try even the strength of the Republic, the advance in some of these lines which makes living better and higher; and we find we have settled some problems; we have found as far as we are concerned some matters which yesterday cruelly cut us do not exist today, but they do exist, my friends, in some other form, and the thought needed, the characteristics of heart and mind needed with their solution is a great deal stronger than was needed in a solution of that which had to do with yesterday.

I believe in that which was sought to be accomplished by the Amberson bill; I unite with our friend that there should be put in the United States cabinet a member whose purpose and whose duty is to represent those in this nation of ours who are working for health. We would need more than this recognition, that which properly belonged to it. In so doing we would do that which seemed to be sensible and recognize that which we knew to be practical and co-operate as we must do along the line of that which would be recognized in this direction.

You have heard most of you that suggestion of the old woman in London, one who had come from the outlying provinces; who was spending each day, which seemed to be the last of her life, in London appealing for aid for her life and health. From the lower district to the higher she was sent in the thought that where wealth was, where there was great power, that which she knew to be charity would assist her; and the old woman went from doorstep to doorstep pleading that they might help her. They told her that there was no opportunity there for assistance, there were organized charities, they had their ways. They were right about that, possibly, they had no part in her life, no relation to her, and you remember how the story ran on that down in some part of that great section (the old woman who had already been stricken then with the disease that was bringing on her death, died) during the next few days there ran back to the houses to which she had been that which caused her death, a sort of plague, that took out of those homes many that were very near and dear to them. The thought of it is they were related to that old woman in every case where she had called. They may not have been related in other higher ways, but you know the physical relation they bore to her, they did have a responsibility for her, and the deaths which came out of many of those splendid London houses were lessons to them, possibly as it has been to us. However they may have been in their responsibility when it reached the weakest point in the life of the individual which would bring to them loss and death and everything they had, misery and sorrow, they understood the interest they had in that old woman. You know in our great cities there are those who are wide as the world apart socially, there are those who are wide as the world apart financially, there are those who have no common interest save their physical relation, and you men know better than I can possibly tell you how close and direct that physical relation is, how to the highest one there, how to the millionaire there may come that which will take his life or take the life of those dear to him from some disease or some weakness down in the lowest part of that city; and you recognize it to be true that the appeal you can make, and the work you can do, especially along the practical line suggested here, is doing more in behalf of the social millenium, is doing more in behalf of what we call the real love for the weakest in the race of life, that is doing more to bring about social ideals than any other gathering that could be assembled in our state.

I think it is true, as stated by the Governor of New York, that there is no more important question than that of public health. I recognize it to be true that the governor and the legislature could give it thought and could give our state no more true benefit than that which they would practically accomplish in some such matters. My suggestion is to appeal to you not to be discouraged because of the development made along that line.

Do you remember that where it is said in I think Ian McClaren's works, there Sir George said—after he had spent the night in the home of Thomas Mitchell, after he had come to know Dr. McClure, after he had recognized the relation the man bore to others who lived in the Glen, had heard the

story from Mrs. McFadden of his entire life as has been spent by many country physicians in the State of Michigan, men who may lack standing, who form no part in our history—that Sir George turned to him who it is said looked like a gillie, but acted like a hero: "Dr. McClure, I want to shake your hand again, Mon, I am glad to have met you, you are an honor to our profession." And you know, those of you who have read that little book, you recognize the fact as it was well stated by the president, this morning, the medical men in Michigan lead the van of those who are striving for that which are called our higher ideals. We may not attain them, it may not be possible during the years of your life. When all your discussions are ended, when all your experiments are through, when all the appeals have been answered to the greatest extent you can answer them, there will still be that undone for those who live after you to appeal for others, and to remember that which you have sought inspiration for has helped their inspiration; and I am certain, my friends, that one is well justified in saying, "Give us your hand again, you Michigan physician, I am proud to have known you. In that which you are accomplishing, in that which you are aspiring for, in all the work you are doing and seeking to do you are an honor to your profession. (Applause).

JUDGE CLAUDIUS GRANT OF DETROIT.

Mr. Chairman, Gentlemen and Ladies of the Medical Association: My friend, Mr. Powers, has said that no layman has a right to appear here before you unless he can show a reason for it. He has shown a reason for it and so has the next speaker. I have no reason to show. I can have an excuse to show, and that excuse is that I have been invited by your president to come here, so that if when I get through you want to kick anybody for my being here you must kick him, not me, for I am not responsible for being here.

Now, I have been friendly with the Medical Profession. I had two broken arms once, and I did not think that Christian Science could put them together again so I called in a physician. I have had other ailments that I did not think the prayer of Christian Science would heal, so I called in a physician, and I have found in my experience throughout life that the man who calls in a physician for himself or for his family, not when he has got a disease, but beforehand is seeking the wise side

I was in the legislature of 1871. I had intended to look back to that legislature for a little bit of history, but I got off a sick bed to come here and have not been able to do it. At that time a bill was introduced in the legislature of Michigan to regulate the practice of medicine. It was drawn by some of the physicians of the state at that time. I think there was a Medical Association then. The bill was mild, as mild as it could be and be thought to be valuable at all. On the floor of the house in the Committee of the Whole, I made a little speech advocating it, and an old fellow, who was a personal friend of mine, who came from the same corner of the state as my friend, Mr. Campbell, got up and replied, and his speech was that there was an old man out in his section of the country very dangerously ill. Physicians had been trying to cure him for a long time and had given him up. He went to an old woman who was a quack doctor there and dealt in herbs and in a few weeks he was well, therefore, he was against the bill. It is enough to say my speech went into the legislative scrap heap and lies there still; the bill went with it after that speech, but the spirit of that bill remains, and its exponent is here today in the enthusiasm of this meeting. At the next meeting of the legislature I was also a member and we got through a very mild bill, and so it has gone on, and I speak of that, my friends, to show that it may take years and years to accomplish the result, but the result finally must come.

Why, we have "pathys." Our worthy minister in praying referred to medical science. I supposed it was a science; I never supposed it was a "pathy." I supposed the duty of the medical profession was to scientifically ascertain and by experiment you were to cure disease and teach that to other fellows and preach it to those in the community. Instead of that we have osteopathy, hydropathy, "kiro-prac-pathy," "K. & K.-pathy," and "Lydia Pinkham-pathy," and they are deluding fakes, all of them. When in the legislature of 1871 there was endeavored to be attached to an appropriation of $75,000 for the University of Michigan to keep alive its Medical Department and the other departments, it was thought to make it conditional, as had been for two terms previous, upon the appointment of two chairs of "pathy" in the Medical Department of the University of Michigan. I opposed that, and why? Because I said then and say now as I said to the Legislature of Michigan, that we have men as professors in the University of Michigan who have got breadth enough, who are sound enough to teach medicine. I do not care where it is, but anything that calls itself a "pathy" and they would teach it instead of medicine, for God's sake let's kick them out and put in men who can.

So, my friends, your work will not be done until a bill like this is passed which will send you as experts out into the length and breadth and every corner of this land to stop the spread of disease. Why, the rich man, the man of little means, the poor man down in Detroit is interested in what is going on in diseases way up in the northwest corner of the state in Ontonagon County. Prostitutes do not stay in Detroit to ply their vocation always; they go over the world, over the state and over the country to spread the disease; and I want to say to you that if there is any work for physicians to do, for this Board of Health to do, it is in regard to this business. Why, this thing has gone on so until Mr. Gillespie, the Commissioner of Police, published to the world last week that there were 160 of these dens of disease openly carrying on their business of disease in Detroit. Why, whenever you find measles, scarlet fever, small-pox, you label the house, and you prevent them, the people, from going out that are within them and people from the world going in, but yet the people of Michigan permit this disease to exist which is a felony under your law, and I join most heartily in what my friend has said in regard to the enforcement of the health laws like others. You have got to take politics out of it and put it in the hands of men paid well and charged with the duty of enforcing the laws of the state. (Applause)

My friends, I am not prepared to criticise this bill, to examine it minutely. I read it over before I was taken ill, but I wish to say to you that my predecessors upon the stand are speaking the truth, I believe, when they have said that all you have got to do is to keep at work intelligently and you will find the legislature will meet you, and before two or four years have passed you will find that bill or a similar one upon the statute books, and you will find in charge of it experts free from politics, free from local influences who will dare to enforce the law. and if there is anything that we need in this country today it is a *renaissance* of law enforcement, law obedience and respect for it, and

obedience to law and respect for it never will come until you have law enforcement.

As you perceive, gentlemen, I am not much of a speaker. I have been something of a fighter in my life time. If, when you get to the legislature, you want any fighting done by a layman outside your profession, call on me and I will do the best I can. (Applause.)

Prof. W. C. Hoad, Ann Arbor.

It is a rare opportunity, a rare privilege, as well as a rare pleasure to have an opportunity of endorsing the sentiment expressed in the address of your president. This paper is especially timely just now when our attention is so strongly directed toward a general movement for better sanitary conditions over the state. Your president remarks in one place that public hygiene from being a camp follower in that army of progress has been advanced to a position on the firing line. This is peculiarly an apt figure just now, but it suggests both a warning and perhaps a bit of counsel. On the firing line it is subjected to the closest scrutiny and the severest criticism and it is absolutely necessary for success that advancement be in the right directions, along right lines, and that the whole thing be maintained upon a sound basis.

I should like to illustrate that with reference to one phase of the general problem of public sanitation about which there is a good deal of hoary superstition, and about which there is the widest possible variance of opinion, that is, the general subject of pollution of streams, stream pollution.

The sanitarian who today comes into relation with stream pollution in any way has thrust at him with disheartening frequency the old-time, out-worn formula that running water purifies itself every seven miles—an old rule formulated generations ago when nothing was known of water born diseases, nothing known of bacterial infection, and when the water was able to be pure and wholesome, when it was clear and palatable. On the other hand we meet the statement of the sentimentalist to whom the placing of waste material of any kind into a stream is a little short of a crime, who shuts his ears and his eyes to the real fundamental needs of our civilization, and who wants to maintain all our streams in their primeval condition, whatever that may mean. And between those two extremes you have all gradations. My point is that it requires straight thinking to keep this forward movement on a sound basis, and to keep it going in profitable directions, because there has been a great deal of unprofitable work done under the name of sanitation, and for this I want most urgently to bespeak the best efforts and the best thought and co-operation of the profession represented here; it is one of the chief difficulies, to my mind, of the medical profession that its members stand at all times ready to take their part in public matters, and from training in a scientific way they are able to think straight, and in addition they are able to think in terms of the community as well as in terms of the individual—individual life, and for the keeping of this health movement, this general movement for better health conditions upon a sane and sound and wholesome basis, it is very necessary that men like you should interest themselves in it.

With reference to stream pollution, for instance, the menace is not one that refers to a single community; it is a problem of the drainage area; it is a problem that is more comprehensive than any single community, therefore some form of state supervision is absolutely necessary, state or other supervision, other than the small community.

The expert system of sewerage, what is known as the water current system of sewerage, by which the wastes of a community are carried away by a system of underground pipes by the water supply of a community after it has been used, and taken without the borders of the community quickly and unoffensively is a real triumph of engineering, and it is wonderfully effective in protecting the community itself from the products of its own life but this same efficiency by disposing of dangerous elements through large bodies of water is terribly potent in carrying the danger to other communities for this reason.

So far as stream pollution is concerned no unit of administration smaller than the drainage area is effective; that requires some larger administrative supervision. That is simply an illustration, one illustration of the need for the large administrative control and moreover for the real need of straight and sound thinking in this line, so that the progress will be upon a sound basis and in the most profitable directions.

ADDRESS OF GOVERNOR WOODBRIDGE N. FERRIS.

BEFORE THE GENERAL SESSION OF THE MICHIGAN STATE MEDICAL SOCIETY, FLINT, SEPT. 4-5, 1913.

Mr. President, and Members of the State Medical Society: I was not invited here with the expectation that I could impart any valuable information; I realize that and did not come here for that purpose; nor was I expected to confer information. I was invited here for a better reason than to give you information. I was invited here because of that growing courtesy everywhere that recognizes the importance of a type of fraternalism, that is vital and important—I appreciate that courtesy, I can assure you. I congratulate this body of professional men,—and possibly there are some women, I do not know—on the fact that you are holding such meetings.

We have gotten beyond the Robinson Crusoe stage, or, unfortunate stage of life; Robinson Crusoe could not break very many of the ten commandments if he wanted to. He was cut off from one source of enjoyment in that. (Laughter) But in this age the intelligent man, the progressive man, does not wish to live alone; he does not wish to bank on his own experience.

This morning I had occasion to talk with a young man who had come some distance and who wanted a little advice, but he went away disappointed because I said to him that what he had acquired without having entered the laboratory of the world, or without having had the benefit of the experience of other men must be indeed very small; and it will be necessary for him to live a thousand years before he would be of any special value to anybody, to say nothing about himself. (Laughter) So I am sure he went away disappointed.

I came mighty near becoming a physician myself; I am not sure whether that is fortunate or unfortunate for the world, or for myself. When I was sixteen years of age I said to my father, after having made careful preparation and thinking I had him in a mood where it was safe, I said: "I want to study medicine. I want to accompany my friend doctor, who is now Dr. E. E. Snyder, of Binghamton, New York, to the medical college in Cincinnati." I had no more than gotten that far before he said: "No, you cannot do it." And I did not do it. I had a peculiar father, a man to whom I am very greatly indebted for my existence (laughter). When he said "No," he meant "No."

Shortly after that little interview I began to teach school. I began when I was sixteen. I should not have been permitted to but I did commence, and taught a district school for a year and then attended an academy; then the next winter I taught district school again, and then attended the Oswego Normal Training School, pursuing a classical course for about a year, and from Oswego, New York, I went to the University of Michigan. Before doing that I visited New York City and found that I had not sufficient money to take a course of lectures at the College of Physicians & Surgeons, and came to Michigan, from my own state. I cannot say whether that was creditable or not; I sometimes debate the question a little; but I do not spend very much time on it, it is so far in the distance. I pursued a course of lectures in the medical department of the Michigan University. I am not aware that this personal detail is of very much interest to you, but notwithstanding it is a mighty important factor to me, and is a human element perhaps worth mentioning. I remember when I enrolled I was not asked to offer any credentials; I was asked a half a dozen questions, more or less, and entered upon my work. I mention that in order that some of you younger men may know, if you do not already know, that it was quite a different thing to enter the Michigan University in 1873, from what it is now, or, if you prefer to put it the other way, it is a mighty different thing to enter now, from what it was to enter then. I recall Dr. Dunster, of those days, and Drs. McLean and Palmer, and possibly with a little more careful reading of my notes I might recall others; but those were the men that made a greater impression upon my mind. At that time, as nearly as I can recall, the juniors, as we were called, were not even so much as quizzed. After we had enrolled and attended two or three lectures—if we saw fit—we could go out in Washtenaw County—if we could find a school—and teach school during the winter and return the next year, and by a study of notes that had been prepared by some one who did attend the lectures, with very little work, we could meet the requirements of the faculty, and receive a degree at the end of the second session of lectures. And the second course of lectures was precisely a duplicate of the first (laughter). I might tell something about that that would revive unpleasant memories, but I will not do that—where a professor came in for the nineteenth year with his lecture unchanged, except that the manuscript got yellower—that was all the change. That actually occurred by an author, then a professor, in the University of Michigan, a great man and no question about that.

We look at things somewhat differently nowadays in this great age of progress than we did then, perhaps. I have not dared to make an estimate on the change in the requirements at the Michigan University. I know that I am perfectly safe in saying that the matter presented, or dealt with, by the faculty is anywhere from six to eight times what it was in 1873. I am sure about that. I know that the requirements now are many-fold greater than they were in 1873; and I am also aware of the fact that many of the men who graduated in 1873-4 have become very successful physicians. Many of this body of men here today would not be here if you were not willing to concede this, and willing to acknowledge that the progress educationally in your profession has been phenomenal; and I stand here this afternoon, and speak for myself, in saying that I hope you have not reached the limit yet in regard to the condition of the requirements that are necessary for a man to enter the profession; I trust that you have not reached the limit in the requirements that men must meet in order to graduate in medicine from the University of Michigan, or any other medical institution in the United States; because it is absolutely impossible for any man to know too much in this profession in order to deal with the human body, and in a measure, perhaps, with the human mind. There can be no escape from that. I am glad of these changes that I have seen fit to mention, as I view it, this afternoon, and I welcome all these changes that make for a higher scholarship and a higher efficiency.

Now, in what I have yet to say, and I am only to speak to you a few minutes, because it is wrong for the governor of Michigan, or any other man to come before a body of this kind and consume any considerable amount of time unless he has some specific and definite message—so, I say, I shall be very brief.

I am anxious, however, to always encourage every profession to have some side-lines of interest, or culture. Other things being equal, I prefer to employ in my family a man who knows something more than what he finds in medical books. I like to find in a physician a man of culture; other things being equal, I would sooner employ a physician who occasionally reads Shakespeare, Walter Scott, or Emerson, or Longfellow, or Whittier, or some splendid drama—other things being equal—than to employ a man who knows nothing of those writers. I often think of an old family physician, who is still living, Dr. Vosburg, of Holly Valley, Cuyahoga County, New York, who from my boyhood has been the medical adviser in my father's family, and now in my mother's family. I can recall riding with him again and again because I have had a passion for medicine I cannot explain. I am always glad to accompany a physician when calling upon a patient and always glad to attend a postmortem—if it is not my own. (laughter) I can recall Dr. Vosburg as we were riding along through the valley and over the hills, reciting to me page after page of Shelley. I said: "Doctor, I do not understand how it is that yau are so familiar with Shelley. How does it happen?" "Well," he said, "First, I like Shelley; and that is one of the best reasons in the world. Second, when I come in from a ride I drop down at the table, near the fire place to warm myself and there lies a copy of Shelley, and I pick up the copy and I run over perhaps twelve or fifteen or twenty lines, and then afterwards when I get into my buggy, and get into the country I find nothing more enjoyable than to recall those lines." I said: "From one reading?" "Yes, from one reading." I veritably believe that that man, long past seventy years is so familiar with the work of Shelley that if by any chance all the editions of Shelley should be burned up today, or should be destroyed, Dr. Vosburg could return it to us in manuscript form. I am not recommending to this body of men today Shelley, or any other poet; I simply believe that for your own sanity, for your own welfare, for your own happiness, for our own joy, and for the satisfaction of your patients and your friends' patients that a physician will always find—and also a teacher—that it is absolutely necessary for his own welfare and the welfare of the people about him, to cultivate these cultural interests. So I am hoping and praying that in that side of your life you may find riches and find pleasures.

I never shall forget that while I was at Michigan University boarding myself, I cut down my rations a little in order that I might hear Richard Proctor, the great English astronomer. I know nothing of astronomy, no more than the majority of you know—very little indeed; and yet I was anxious

to hear Richard Proctor. I have always been a hero worshiper; I have always worshiped heroes. So I economized to buy myself a single admission; I was not able to buy a course ticket, and I was obliged to be careful in my selection, and I heard Richard Proctor. What was the result? The result was that I bought every book that Richard Proctor had ever written on the stars, and on the heavens and revelled, as a means of recreation, in the great knowledge that Richard Proctor had given me about the heavens; and now at the age of sixty—and I would like to live a little longer, not that I might carry on my work, primarily—that would be a splendid aim and ambition; but in order that I might know more. It seems too bad that when a man gets to be fifty or sixty years of age and knows that he lives in the most wonderful, wonderful world, and when he is most able to have an interest in it, that he should have to lie down and forsake it forever, and ever and ever. I have a hunger along that line. I am sure that there is some simple response in the heart and mind of every man that is listening to me. Pardon me for that caution, or pardon me for that suggestion, if you want to call it a suggestion. But I want to say to you my brother doctors that there is a feeling of joy and of pleasure there.

I think you all know Dr. Weir Mitchell of Philadelphia and his large hopes; some of you have some of the splendid characteristics, and some of the broad views that he has. I know what you will say, that a man cannot be a specialist; he cannot do this line of professional work without devoting all his time to it. I am going to say that he cannot work his special line without diversion in the other lines. I am going to take the opposite position, and I believe that I am right.

I am also praying and hoping that in Michigan, and in every state in the Union—I go further—that in every large city in the United States, sooner or later there may be an organization of physicians that shall be essentially what the New York Academy of Medicine is in the City of New York. What a wonderful work that association of men is doing for the public!

We have a work, every last one of us, beyond that which can be definitely called a profession. This is a new age, an age of solidarity in which we have to pull together, in which we have to work together. "No," somebody says, "I dissent, I am an individualist." But you cannot be an individualist and devote the genius that is in you without recognizing yourselves the solidarity of your work to your fellow-men. Therefore, I am particularly interested in the work they have done, or that has been done under their direction, directly or indirectly, or in combination with the school boards. The school board of New York City, I think, under the direction of this magnificent body of men, directed that a medical inspection in the schools be conducted, or a medical examination, which was done; and 230,243 children were examined. Seventy-two and one-half per cent of these 230,243 children needed treatment. Now, some one says: "We are interested when we are called; it is no concern of ours, in the broad sense, as much as the speaker has indicated." But that will not be maintained in this convention I am sure.

Out of the number, thirty-nine per cent of the number that needed treatment had defective teeth. We have gone away beyond that point. You are not dentists, I understand. But we have gone away beyond the age of my father. He never dreamed that a dentist had anything to do but to make false teeth, and to pull teeth. Conesquently, the children of my father's family had to part with many and many a treasure, and he used a hook that he had gotten from the shoemaker in order that he might extract the tooth; then when one of us did have another tooth to be attended to we called upon the ordinary physician who had an instrument that ought to be on exhibition as an evidence of progress in a body like this. (laughter) How grateful, how much more grateful I would be to my father today if he had only known; but I do not blame him. I do not blame him. He did the best he knew. Times have changed since then, and now we have moral courage, and teachers to say that beyond any question, outside of the moral, every boy, every girl, every man and every woman should have his teeth examined by one who is an expert, and who knows how to help him, and preserve those treasures that have so much to do with his stomach, so much to do with his general health, and not a little to do with his mental growth, and his mental equilibrium. In 1910, on examination of over half a million children—674,667 by actual count—they found that forty-three per cent. of this half million had communicable eye and skin diseases. I said communicable eye and skin diseases. I will not stop to enumerate those diseases. I might pronounce some of the words wrong; but it is satisfaction for me to make that general declaration.

So the field of the physician widens and widens and widens. If I had my way about it—I do not expect to have it, I will be long dead before anything of that kind comes about—I should make it possible to engage a physician for so much a year to keep the family well, and then when sickness does occur his pay should stop. (laughter and applause). In that way I feel that possibly we might make some progress. I am thoroughly enthusiastic in the matter of prophylaxis; but one of the great problems is, how can this knowledge that the medical profession is scattering, and is giving to us, how can it be made impressive and practical? A few years ago we were enthusiastic in our schools over the matter of teaching the effects of intoxicants upon the human system. Today we are doing something along that line. I wish one of my friends, an old class-mate, was in the audience, and I believe I would take a whack at him in this matter of teaching temperance in our schools. Now, do not misunderstand. I am most emphatically in favor of teaching temperance, of teaching virtue, of teaching everything that will lift humanity and will benefit humanity. No one can be more enthusiastic in that than I am; but the result is disappointing. I said to one author: "What possible bearing can that page in your physiology on teaching temperance have upon the growing boy?" It was a picture of a coffee pot; at the mouth of the coffee pot was being held a saucer. In the text it said that this coffee pot was half full of water; that it was being heated, that it vaporized and the vapor passes off at the mouth, struck the cold or cool saucer and was there collected in drops of water again. In like manner it said if you had put hard cider into the coffee pot and exposed it to heat, the alcohol vaporizing at a lower temperature than water the alcohol would pass off first and have been collected in the same way on the hot saucer. And it was in that way that liquor is distilled. What under Heaven could be the relation between that process of distillation and the inclination of a boy to walk up to a bar and order a cocktail? (Laughter). Absolutely no relation whatever. So that these books missed it, in their attempt to teach temperance. I remember of hearing of an old woman in this country, in Martha's Vineyard, passing around to an audience upon which she wished to impress the dreadful

effects of alcohol, the half of an apple which had decayed; later on she passed them half of another apple that was sound, and wanted them—wondered if any one would partake of it, and she went on to argue that distillation was a decaying process, and therefore, the boys and girls, knowing that, of course would not ever engage in the use of spirituous liquors—absolutely no relation between the enlightenment, the teaching. and conduct. So today it is one of the difficult problems, and I wish you doctors here would tell us teachers and tell ordinary men and ordinary women how under Heaven you can get men and women to practice what they know. You don't (laughter) you don't try to do it, and you do not intend to do it when you go away from here.

Now, my friends, that is no small problem—and you will pardon me for running over into another realm—it is one of the great problems of the twentieth century. How can you get men and women to behave with reference to their best physical welfare, their own best social welfare, and their own best welfare as men and women? You have been doing what I have been doing, in a measure; you have been believing that if men knew what was right they would do what was right. That is absolutely false. Men will not do what is right because they know what is right. I would not be fooling away my time with eight or ten bankers in Michigan who are now in State prison, if those men had made any attempt to follow the philosophy they knew; men fall by the wayside every day, and do things that horrify us and startle us, because they have their instincts, their cravings, and their desires which are the dynamic force of every man and every woman, and they receive, in this country, up to the present hour, little or no specific training; and therefore, whether the boy drinks or does not drink, whether he does this thing which is physically wrong, or that thing which is physically wrong, is largely a matter of training, and not a matter of expression. When, when, may this dawn upon us? How can you physicians, how can we teachers, how can the preachers work something of a revival in men and women, something of an inspiration whereby their knowledge shall avail them something? The men who have charge of certain specialty institutions where the fine mechanism of the human mind—we are not personal in these remarks—where the fine mechanism of the human mind is at stake, they themselves ignore the very thing that they are trying to carry out in their practice. When, I say, shall we be able to make a new start educationally? When, shall we be able to make a new start in building men and in building women? I find that the majority of the boys and girls I deal with know and notice more of health than they practice. So, my friends, sometimes when you have a little leisure tell us how we can get this response; how we can get these legitimate cravings and legitimate desires, rather than those which pervert and corrupt. Do not misunderstand me. I believe that in the majority of men, even the worst, and in the majority of women, even the worst, there is much that is good. I have no inclination to pay too much attention to the misuse of a God-given function in the here and there man, and the here and there woman.

But notwithstanding, we have this problem that I have tried to present to you. There is not simply in the man one Dr. Jekyll and one Mr. Hyde, there are dozens of them, and you and I know that it is so. (laughter). I wish in the home, I wish it were possible for the physician—I mean the ordinary practitioner—I wish it were possible and practical for him to know that family, as a family. I hope it is coming to be the custom and the habit all over the country—I know nothing about it, I have not asked a single practitioner—I hope it is coming to be the habit, that the family shall continue, as long as it certainly receives the splendid services of one man, of calling for only one physician, so that he may become acquainted with that family, so that he may guard that family physically, mentally and morally.

How many, many cases of educational evil could be avoided if the physician who knows of the certain ailment of the throat, adenoid growth, of the certain defects of the eyes and ears, and of the other senses, more than he could educationally get a hint of, might be of service? I practice what I preach, and what I am now talking. Fortunately or unfortunately for me, my family physician is present here today; and you can find out from him. For instance, in my own case I recall a medical examination for a life insurance, in which a physican from out of town saw the victim (that is myself) passing the office where he was sitting, and he remarked: "Is that your candidate?" Some one replied that it was. "Well," he said, "he won't pass." He did not know the victim; he did not know the characteristic pulse of the man with whom he was speaking. I do not know how it happened to be so remarkably slow as it is, but that is the way it happened. The other side of the house is a mighty sight faster, in more ways than one. (laughter). These peculiarities, the physician who is regularly employed, finally knows; and I believe that his function is not fulfilled except when he is overcoming or helping the patient not to overcome, put it any way you please, some ailment within his particular knowledge. We as social creatures should love one another and serve one another. And that is why I love to read those tales that have been written concerning the physician. They are to me encouraging.

I had not been elected governor very long before a certain class of men began to come to me, knowing my sympathy, and knowing my love for the practice of medicine. I might add right here that I am reading today with as much joy and as much satisfaction the numbers of the medical journals as any of you are reading. I have in my library probably as representative books on nerves and mental and nervous diseases as any one of you, except experts. No credit to me, I simply enjoy the study, it is the pleasure that I get out of it. Once in a while I help some unfortunate man out by having sense enough to ask some physician, through my reading to give him a little assistance, or to give a man or a boy, or a woman some little guidance. So that I am certain today that if I were twenty years younger—I am sixty—if I were twenty years younger I would abandon the work absolutely I am now doing—outside of that of being governor. Perhaps it would be well enough for a matter of history that it should be recorded that you had a Democratic governor for two years, at this particular time. (laughter and applause). You must pay proper respect to history. (laughter). But outside of that I would go into experimental medicine for the love of it. But the problems that you men have to solve, how wonderful they are! (Applause). There is absolutely no parallel to it. I even put your profession before that of the preacher, valuable as he may be; I put it before that of the teacher.

I am not here this afternoon to recite some of the diseases that baffle you, and have baffled you and the medical profession all the way down the ages. They are going to be overcome; we are going to know—I beg your pardon, I won't say that, going to be overcome directly—I do not mean that you

will find some cure, but you will find that which is equivalent to it; we must stop producing the specimens that have the diseases. That is at least an entertainable belief. (Applause).

I started to say that men began to ask me: "Do you think the medical laws of Michigan will need to be changed?" "Well," I said, "I hope to God they will." I said, "What are you doing in here?" (This one in particular) He says, "I am a chiropractor." (If there is a chiropractor here you have my profoundest sympathy.) I have not anything against any of these miscellaneous, heterogeneous mob that is praying upon human society (applause). They do not know any better and therefore we should be charitable. I said to him: "You used to be a student in the Ferris Institute?" "Yes," he replied. I said to him: "You are not a high school graduate?" "No sir," he said, I continued: "You did not stay long enough to get your credit, to enter a first class medical college?" "No" he said. "Now," I said: "You have taken the course of six months—" (that is, I don't know whether I said six months or nine months, it doesn't matter very much, not very much, six months or nine months,) "And now you are around practicing your profession as you call it." I said: "My friend, I shall deem it a privilege to have the opportunity to eliminate the possibility of men like yourself preying upon the community." (Applause). Too much credit should not be given to me for having made some success along that line. I want to say to you medical men that I think you do still need more courage. It is not a matter of protecting yourselves individually; that is not the primary reason that I plead with you this afternoon. I do not care so much about your income, that is not a matter for me to work out, nor to concern myself about. I presume that when necessity requires you will raise your fees. I do not know. I do not care if you can deliver the goods. That last part is very important. (laughter). It does not matter to me what I pay, *but what do I get?* That is the important thing. Now, then, for the good of the community, for the good of the people generally your ways ought to be different; I believe and we all believe that you should fight early and late to eliminate every specimen that roams the country or directly or indirectly preys upon the ignorance and the superstition of the people of the State of Michigan. (Applause.)

Now, you did something through the last legislature—I say do not give me very much credit; I did all I could. I found little or no opposition in the legislature; the legislature deserves very great credit, and your hearty thanks, because it dawned on the legislature as well as on the governor that about the only way to turn over a new leaf in Michigan and do something was to work together—the very principle that I have emphasized and hammered upon this afternoon, the "together principle." With it, and of course the co-operation of the governor, you got what good things you did through the legislature.

But do not let your work suffer. To my mind it is appalling, appalling, when I stop to read the character of the letters that are sent to me by people, who under ordinary and favorable circumstances have a little intelligence. But in this matter, I am playing the physician, in this matter of encouraging medical progress; in this matter of encouraging men to manifest the highest possible skill. Some of these men seem to be absolutely stupid; I do not know of any other phrase to use. But you know all about that.

So that my last word to you in this matter is that under all circumstances, regardless of the things that may be hurled at you, out of what you owe to your fellow-men, what you owe to the great commonwealth of Michigan, *please keep raising the standard;* and if needs be, even in your own ranks. Sometimes that sort of thing is not altogether criminal for there are men that back-slide. There are those that perhaps have gone as far as the hobo did when he was asked by the good woman how his knees came to be out, and he said: "That was from the fact that he prayed so frequently." After she had fed him, she happened to walk around him, and seeing him depart she noticed that there were holes elsewhere in his garments, and she spoke to him and said: "How did you get those?" He said, "I got those back-sliding." (laughter).

So my friends and brethren, I am glad to have had this opportunity to meet you, not to give you any information; but possibly with a little bit of inspiration or encouragement I have touched some man who is soft on the same side that I am, who has some of my tendencies and he will guide you a little bit further, and offer perhaps a little bit more encouragement. I hope to God I have not discouraged anybody. I want to tell you that it will always be a privilege in this world, and in the next world, for me to confer with you, although in the next world we may be in a place where we shall not have any occasion to talk about remedies for anything. (Laughter, applause and cheers)

PUBLIC HEALTH*

C. J. Larson, M. D.

NEGAUNEE, MICHIGAN

Public Health may be defined as the administration of all laws and the enforcement of all methods that prevent disease, with especial reference to the prevention of communicable diseases, and the protection of citizens against disease in public places.

I have nothing new to tell you men who are physicians; my aim is to bring your minds to bear on this subject and to promote a discussion of the various phases of public health work. In all our public health work it is not so much work of imparting information as it is a matter of reminding people of things they already know. Everyone knows that some diseases are contagious, that bad ventilation and lack of cleanliness is not conducive to health, still they do not avail themselves of the knowledge they have—we have to hammer them with laws and ordinances and drive them to do certain things.

With the community as well as with the individual health is the very greatest asset. With health, all things are possible—without it, most things are impossible. Is it not strange that as a community as well as individuals we do not put a greater premium on health and everything pertaining to it. "All that a man hath he will give for his life," and yet see how so many unthinkingly throw away their lives.

It is a painful reflection, and nevertheless

* Read before the 19th Annual Meeting of the Upper Peninsula Medical Society, Aug 6-7, 1913, at Ishpeming, Mich.

true, that most of the suffering and death and misery in the world is unnecessary. Every death from typhoid fever and tuberculosis is a needless and shameful sacrifice of human life. The same may be said of the venereal diseases and the gastro-intestinal diseases of infants. I cannot quote you exact figures, but the calculation has been made that if one-third of the money and effort used in treating and caring for all this needless sickness, and in burying the dead, to say nothing of the industrial loss to society from the incapacitating of these victims—if one-third of all this expense and effort were expended in strict prevention, in one or two generations we would have typhoid fever and tuberculosis placed in the same list as small-pox, plague and leprosy. "An impractical dream" no doubt some will say, but I think that in time the dream will come true.

Death is a natural and necessary process—it is as natural to die as it is to be born. It would not be desirable to live always, and so dying in old age has come to be looked upon as a welcome occurrence, as well as an inevitable one. It is nature's way of putting the worn out mechanism out of the way to make place for the new generation. But what a small percentage attain old age and die naturally! Thirty-three years represents the average human life. Still most of these untimely deaths are caused by preventable diseases and preventable accidents. And it is these deaths of young and middle aged persons that constitute the tragedies of existence. Coming at such times and in such instances, death is the "grim destroyer" we all fear and try to avoid, And while the mission of our profession has been and is to treat disease, the future will lead us along new paths and into new ways, where the aim and efforts of our lives will be prevention.

Just why we should have sickness to contend with, *why* there should be certain organisms and influences that upset normal conditions and destroy life, is hard to fathom. We know that if no evil influences are brought to bear, the human organism, as well as others, goes through its cycle of existence uneventfully. There is no doubt about it, though sometimes we cannot find the real cause. We ought to be born healthy, grow and develop into strong men and women, perform our life work to the best possible attainment, grow old gracefully, and die full of years and honor. Instead of that, witness the hundreds of thousands of infants dying of intestinal diseases, brought on by bad milk and improper feeding, the countless hosts of young and middle aged dying of tuberculosis and typhoid fever, and numberless persons past middle life dying of arteriosclerosis and kindred conditions.

No one can deny the truth of these assertions. It is in the method of attaining better conditions that we may differ. I think it is by proper and efficient legislation that we can accomplish better things. As I expressed myself a while ago, it is not so much a matter of educating the public, as it is driving them to do certain things. They know as a rule what is right and what is wrong, but nine out of ten will do the right thing only when compelled to, or when fearing punishment—in the shape of a fine or imprisonment. Our public health laws are in many ways very efficient. Many of these laws have been framed and passed by lay persons incompetent to produce proper laws. Very often lobbyists and grafters with personal aims influence for the bad such legislation. Who is best fitted to make such laws if not members of the medical profession? Public Health legislation should be more freely and more often discussed at our medical societies, and I think cities, counties and states should leave the drafting of health laws to the respective medical societies, and there ought to be one physician at least on every city council and county board and a liberal sprinkling of them in our state and national legislatures.

My experience as a health officer has been very limited as compared with some of you men. But I have had abundant opportunity to see the failings of our public health work. In the City of Negaunee, the lack of proper laws has been responsible for many of the shortcomings.

Another striking thing is the utter disregard of the average citizen for all matters relating to public health. About the only time he betrays any interest, is when he comes to the health officer to complain of his neighbor's garbage pile, or when there is a dead dog or cat in his alley. And the garbage pile of this citizen often receives no consideration except when the wind blows the other way, then the other citizen makes a complaint. The health officer is usually the least paid member of the municipal government, usually receiving about one third as much pay as the pound master. That means the city pays three times as much salary to the man who keeps the cows off the street, as it pays to the man who looks after the health of the community. At that I presume some health officers are not worth as much as they get. But the average health officer gives most of his time and talents, and is satisfied to work for next to no pay, as long as he can secure co-operation on the part of the other city officials and the public.

Another great handicap is the lack of uniformity of health laws. I think our health laws, as well as the examination and registration of physicians, should be taken care of by the federal government and then you would

find uniform laws and not as at present—different laws in different states, different counties and different cities. What is prohibited in one town or state is permitted in another. Of course there are local conditions that call for special handling and in such instances local legislation is all right.

There are two diseases that I think call for more drastic legislation. I mean tuberculosis and venereal diseases. A man with small-pox or leprosy is hurried off to some shack in the woods; there he is watched like a wild animal in its hole—while a person with tuberculosis or syphilis is permitted to go where he pleases and do what he chooses. Is there any reason why these persons should not be as carefully seggregated as cases of small-pox? But advise will not make these persons change their ways, they have to be compelled by law to do differently. And until we have stringent laws on the subject, we will make but little head-way in our work of prevention.

SOME DIAGNOSTIC POINTS IN DISEASES OF THE EYE AND NOSE, OF INTEREST TO THE GENERAL PRACTITIONER*.

C. R. Elwood, M. D.

MENOMINEE, MICH.

When asked, by your Secretary, to present a paper at this meeting it occurred to the writer that a brief consideration of the diagnosis of some of the commoner ocular and nasal diseases might be of interest, although such a discussion must of necessity be very superficial.

It has been my misfortune to have a patient consult me for the removal of cataracts who was hopelessly blind from chronic glaucoma. The anguish of this individual—who had been waiting patiently for her cataracts to ripen, believing that when this time came their extraction could be accomplished with restoration of vision—can be appreciated, when told that she had no cataracts, but was hopelessly blind from atrophy of the optic nerve.

DIFFERENTIAL DIAGNOSIS OF GLAUCOMA AND CATARACTS

The differentiation of these two conditions is not always easy; briefly considered, the important diagnostic points are as follows:

In chronic glaucoma intraocular tension is appreciably increased, whereas in cataract it is normal. This symptom may be elicited by having the patient look down, place the index finger of each hand upon the upper portion of the eyeball and gently palpate as one would to detect fluctuation of a tumor. It is wise then to compare this tension with that of the examiner's eye, which is assumed to be normal. Various tonometers are on the market, which are simply refinements, but the trained finger tips do very well.

In chronic glaucoma there is usually some history of pain, of a rather characteristic type, each attack being followed by impairment of vision, although this is not necessarily so as the disease may sometimes proceed to complete blindness, with no more definite symptoms than the progressive failure of vision (especially for near work), gradually increased intraocular tension, a contracted visual field, and a dilated and relatively inactive pupil.

In cataract there is no pain, the vision is progressively impaired and the lenticular changes may be recognized early by oblique illumination and a dilated pupil. The pupils in cataract are not dilated and quite as active as could be expected with the amount of vision present.

The presence of colored halos around lights is not so pronounced in chronic as in acute glaucoma, although this symptom is present to a limited degree, whereas in cataract there is no halo.

IRITIS AND GLAUCOMA

More distressing in its result because the conditions are met with more frequently, and because the damage done can not be repaired, is the confusion of acute glaucoma with acute iritis. In the latter conditon atropine is the one essential remedy, for we must dilate the pupil and keep it dilated if benefit is to be derived. The drug must be used promptly, before *synechae* have formed between the pupillary margin and the lens. In acute glaucoma atropine of all remedies should not be used. It aggravates the condition with which we have to contend and the patient would be far better with no treatment at all.

The differential diagnosis between these two conditions is, therefore, of such vital importance that I wish to go somewhat into detail. In acute glaucoma there may be paroxysms of very severe pain, of a throbbing character, after which there is a very appreciable impairment of vision. The cornea will often have a steamy look and is anaesthetic. The pupil is dilated, the iris but little discolored, and the anterior chamber often appreciably shallow. Vision is impaired and accommodation very imperfect. Should the visual field be taken it will be found contracted and the optic disc is cupped. Intraocular tension is increased. In both diseases there is some congestion, but less in glaucoma, in which disease the vessels stand out more prominently, whereas in iritis there

* Read at the 19th Annual Meeting of the Upper Peninsula Medical Society at Ishpeming, Mich., Aug. 6-7, 1913.

is often a very deep ciliary injection, giving a somewhat purplish color to the ciliary region.

In iritis also there is pain, often worse at night. but more of a shooting, lancinating character, not accompanied by so great visual impairment. The cornea is not steamy, not anaesthetic—but on the contrary is sensitive—the pupil is contracted instead of dilated, is sluggish, and the iris has a greenish muddy discoloration. The pupillary margin is more or less adherent to the lens. Tension may or may not be reduced, but, unless complicating glaucoma, is never increased.

It is the patient over forty-five who is more liable to develop glaucoma and with whom atropine must be used with caution; but this caution must not deter the physician from using a mydriatic when necessary, as failure to dilate the pupil when indicated, may be as disastrous as to do so when contra-indicated.

It is important to dilate the pupil in every severely inflamed eye which does not react to light *if the symptoms of glaucoma are absent,* although it is sometimes a safer plan with the middle aged, after assuring oneself that no *synechae* are present, to immediately counteract the effect of the mydriatic with a myotic.

HEADACHES

The influence of eye strain in the causation of headache is so well understood by the progressive general practitioner that its consideration here is unnecessary, although it may be of value to call attention to the fact that all eye strain headaches are not necessarily due to refractive error. The individual eye may be perfectly refracted and still eye strain persist—due to insufficiency or imbalance of the ocular muscles, or imperfect stereoscopic vision. This defect may be corrected by stereoscopic exercises, exercise prisms, or, in exceptional cases, a slight surgical procedure. The treatment of these conditions constitutes the most scientific and exacting part of the fitting of glasses and demonstrates the folly of delegating this part of the practice of ophthalmology to "Doctors of Optometry" or kindred tradesmen. The importance, however, of the routine nasal examination of all patients suffering from intractable headache, has only recently been appreciated, and the treatment of conditions thus found has yielded most gratifying results. Many cases in which the symptoms were formerly attributed to eye-strain alone, but not wholly relieved by glasses, are now cured by the discovery and correction of the existing intranasal pathology.

That the lachrymal sac and duct act as channels of infection from the nose to the conjunctival sac in many forms of ocular inflammation has long been accepted, but the intimate physiologic and pathologic relationship of the anterior cells of the ethmoid labyrinth, the maxillary antrum, and the frontal sinus to the eye and diseases usually attributed to the eye, has only recently been sufficiently emphasized.

I have recently had under observation an interesting case which demonstrates the importance of the routine nasal examination of all patients with obstinate eye symptoms. For many years the patient caught cold easily and with the cold came severe headaches. About three years ago she had very severe pain in the eye with visual impairment, but no symptoms referable to the nose. The oculist consulted made a diagnosis of glaucoma and advised the patient to go at once to the hospital for treatment. Fortunately, an iridectomy was not done, but under antiphlogystic treatment the symptoms subsided to such an extent that the patient was able to return to her home, although the trouble did not disappear entirely and she was unable to use the eyes for any length of time. Last fall there was a recurrence of her trouble, when pus was seen coming from behind the middle turbinate, and further investigation revealed a chronic suppurating frontal sinusitis with extension of the disease to the ethmoid cells. Drainage of these cells, radical enlargement of the fronto-nasal duct after the method of Goode and frequent irrigation have relieved the symptoms, and saved the patient the disfigurement of an external operation.

Two excellent men—one a recognized authority—attributed the symptoms to the eye and the real cause might not have been recognized had it not been that the frontal sinus was discharging slightly at the time of my examination.

While this is a rather unusually forceful demonstration, it is a common experience of all in this line of work to find cases of persistent headache supposedly due to eye strain which are relieved by the correction of some intranasal obstruction interfering with proper nasal respiration or drainage.

More difficult of diagnosis are the headaches due to a non-suppurative sinusitis. A septal spur or deflected septum may exert such pressure on the middle turbinated body as to close the *hiatus semilunaris.* This will block the drainage of the frontal and etmoidal sinuses, producing an inflammation of these structures, the same as closure of the eustachian tube will produce an otitis media.

There are some symptoms which should cause one to suspect the nose rather than the eyes as the etiologic factor in headache, but there are so many in common that both structures should be carefully examined in obstinate cases.

The victim of nasal headaches is often an individual who catches cold easily as a result

of the defective areation and drainage of the obstructed nasal attic, and his headaches are often unilateral.

The location of the pain will often assist in locating the exact sinus involved: if frontal or supraorbital or there is supraorbital neuralgia, the frontal sinus is to be carefully investigated. If the pain is more particularly located at the root of the nose—between the eyes—suspect the ethmoids, although a chronic ethmoiditis may produce frontal headache. Temporal or occipital headache is suggestive of inflammation of the sphenoid. These symptoms are often aggravated by stooping, jarring, or riding on a train.

A chronic sinuitis may be responsible for the blurring of type, eye tire and all the asthenopic symptoms formerly attributed to eye strain alone, and it is for this reason that I wish to emphasize the importance of giving more attention to the nose in these conditions.

SYMPATHETIC OPHTHALMIA

Permit me to conclude this very general talk by reciting a distressing experience of seeing two patients blinded in one year from sympathetic ophthalmia, a catastrophy absolutely unnecessary and inexcusable.

Case 1. A ten year old boy was cut across the cornea from limbus to limbus but the ciliary region was not involved. When first seen by me the iris was incarcerated in the wound and vision was gone. Because of the ignorance and indifference of the parents I urged removal of the blind eye, which was refused. When he returned two weeks later symptoms of sympathetic irritation appeared, but my advice to enucleate was again declined. I did not see him again for two or three weeks, when sympathetic inflammation was well established and only a possibility of benefit remained. To give the poor child the benefit of his only chance to preserve some vision I jeopardized my own interest by enucleating the exciting eye. The sympathizing eye went on from bad to worse—as was to be expected—and I have the credit of having blinded the boy, but no other compensation.

Case II. A farmer thawed dynamite and as a result there was a perforating injury of the eye with incarceration of iris and traumatic cataract. He was seen by me in consultation where the accident occurred as it was impossible to move him because of other injuries. The wound was cleared of iris and appropriate treatment instituted. The uninjured eye was normal in every respect. The danger of sympathetic inflammation of the good eye was fully explained to the patient and he was given a test type with explicit instructions to report immediately if vision failed in the least, if the good eye tired or any other symptoms of sympathetic disturbance, which were fully discussed with him, developed. He was lead into the hospital some six months later, hopelessly blind, giving sickness in his family his excuse for the fatal delay in beginning treatment.

It is far pleasanter to report surgical and medical triumphs than such disasters as have been mentioned, and a perusal of medical literature would lead one to suppose that the loss of a second eye after injury to the other was a possibility, but little more.

After my own experience I wish to emphasize that it is a *real* danger, which develops so gradually it may almost pass unnoticed until irreparable damage is done unless the utmost care is taken.

Any eye containing a foreign body which cannot be removed, with extensive incarceration of the iris, or with a penetrating injury of the ciliary body, is a very dangerous organ to be permitted to remain only under most favorable conditions for constant observation.

PLEURISY AS CONSIDERED BY THE GENERAL PRACTITIONER*

W. S. Picotte, M. D.
ISHPEMING, MICH.

When I chose Pleurisy as a subject I did not pretend to write anything new on this disease but having been impressed by its prevalence in this community I simply wished to recall to the mind of the general practitioner the care he must exercise in meeting it. Owing to its insidious nature in many cases, it is often overlooked in the early stages. This, aside from delaying action toward appropriate treatment and therefore endangering the life of the patient, often places the physician in a responsible and perplexing situation.

AUTHOR'S EXPERIENCE

I consider it of very frequent occurrence since I have been able to collect during the last eight years of my practice, over sixty cases. Of this number the majority were of serous or serofibrinous nature with effusion amounting in quantity from one ounce to three quarts. Six were purulent, eight were caused by passive congestion due to organic disease of the heart, kidneys or liver; the remainder were of the so-called plastic type. The ages of the patients ranged from two to sixty-seven years.

The classification generally understood in describing pleurisy places it as acute or chronic with or without effusion.

ETIOLOGY

In studying the etiology of this affection we must admit the microbic factor in a great majority of cases. Tuberculosis I observed to be the leading element by far and then pneumonia, whooping cough, measles, typhoid, and scarlet fever. In a certain percentage, however, there seems to be reason for doubt as to the microbic nature. In this latter category would be those

* Read before the 19th Annual Meeting of the Upper Peninsula Medical Society at Ishpeming, Mich., Aug. 6-7, 1913.

cases developing suddenly in perfectly healthy subjects following prolonged exposure to cold and wet; also, such cases as develop effusion during the course of chronic nephritis, organic disease of the heart or liver.

MORBID ANATOMY

The morbid anatomy pertains mainly to the nature of the effusion. In tubercular cases where no mixed infection exists this is usually serous and amber in color. To find the tubercular bacilli in this is rare as they seem to act as an irritating cause in a small focus without penetrating the pleural wall. Where pleurisy develops during the course of an infectious disease the effusion in the early stage is found to be serous but soon becomes seropurulent, assuming a grayish color with shreds or floculli of organized fibrine, and later it becomes purulent. The pleura itself thickens to a degree corresponding to the time, severity and progress of the inflammation. In one case of streptococcic empyema I found it more than an inch thick.

SYMPTOMATOLOGY

In many instances the disease is insidious and develops without giving rise to any appreciable *malaise* and the chest fills with fluid, causing after a time pressure symptoms affecting the respiration. This is particularly common in children. Prodroms, such as severe local pain in the side, chill, temperature, cough with slight or no expectoration, dyespnoea, etc., exist in the general run of cases. Pain is usually very severe, due to the respiratory friction of the opposing pleural surfaces. In dry pleurisy the pain lasts longer than it does where the effusion occurs, as the latter separates the opposing surfaces. While it is usually felt over the inflamed area, still patients often complain of it in the lower part of the abdomen or down the leg of the affected side. There is always temperature present, but this is very irregular and during the first week often drops below normal or again it may oscillate from normal to 102° F. or even to 103° F. in serous cases. Where pus exists the hectic curb shows up and the pulse corresponds. Dyespnoea is misleading for I have seen cases with one side of the pleura completely filled without producing any feeling of distress. In such cases palpation reveals complete immobility of the chest wall due to distention of the pleura; displacement of the heart and even bulging of the chest. The absence of vocal fremitus in adults is easily observed.

Careful percussion is a serviceable method in ascertaining the condition of the patient in pleurisy. In the initial period or the first few days percussion sounds are absent, but as the inflammatory process advances, dullness is readily heard and with the pouring out of fluid this dullness passes to the state of absolute flatness. By percussion it is possible from day to day to follow the line of ascension of the fluid and by changing the position of the patient you can often follow the displacement of it. Early in the disease friction sounds are present but disappear with the effusion. In extensive effusion of the left pleura I have observed displacement of the heart to the extreme right and in one case of a seven year old boy it took over three weeks, after tapping, for this organ to return to its normal position. This may have been caused by co-existing pericarditis.

DIAGNOSIS

The diagnosis of pleurisy, as a general rule, is not difficult, but to ascertain the exact nature and extent of it is a more complex proposition. With pneumonia it differs in the temperature course being much higher and persistent in the latter. The absence of bloody sputum in pleurisy together with the friction sounds heard during inspiration and expiration should help to distinguish the dry stage. When consolidation of the lung takes place or effusion forms in the pleura percussion ought to indicate the line of demarkation which is usually S shaped. Vocal fremitus and vocal resonance are diminished in pleurisy and increased in pneumonia. I have seen one case of pericarditis with effusion which caused us much uncertainty as between pleurisy and tumor of the mediastinum where exploratory needle cleared the doubt. Exploratory puncture almost always settles the question though I recall three instances where it proved disappointing. In all three cases physical signs pointed clearly to presence of fluid. One was certainly a case with circumscribed pus sack in a ten year old boy whom I now have under observation. Following pneumonia seven weeks ago, pleurisy developed, and the child underwent a typical septic cachexia with alarming emaciation. Two explorations failed to reveal fluid though I feel convinced it was there. Now the child is getting better, his temperature has disappeared, pulse is normal and he is daily gaining weight and color. I believe this was a purulent case with interlobular abscess.

Among numerous other important diagnostic symptoms are two which should receive mention. The first is radioscopy reported by experts to give very accurate information in outlining the effusion. I have only tried the fluoroscope a few times but never with any degree of success. The second of these symptoms is new and as yet I have never seen it described in print. It is known as the sign of the spinal muscles recently observed by Ramond. I saw it demonstrated at the clinics in Paris last year and have been able to observe it since. Proceeding on the theory that where

a serous membrane is inflamed you have contraction of the neighboring muscles, as evidenced by the muscular rigidity of the neck in meningitis and of the abdominal wall in peritonitis, Ramond demonstrated that in pleurisy also there exists muscular defense. This consists of a bulging muscular mass distinctly felt on the level with the twelfth rib of the affected side. Normally, those muscles contract when the patient leans forward, but in a standing erect position they are practically relaxed. It is in this state of normal relaxation that this rigid mass is found in the patient and it increases when he is made to lean backward. In unilateral pleurisy this sign is very distinct and may persist long after recovery. One should, however, keep in mind the possibility of Pott's disease where there is contraction of the spinal muscles, but in doubtful cases its presence should corroborate the diagnosis.

PROGNOSIS

The prognosis in pleurisy is always serious, though not necessarily fatal, and depends on the cause. Lately a patient of mine died of pulmonary tuberculosis originating in the spot where pleurisy had existed nineteen years ago.

TREATMENT

The treatment followed in my cases varied very little. In the early stage of dry pleurisy opiates are almost always necessary to alleviate the pain. I usually prefer Dovers' powder when the stomach is not too irritable, otherwise morphine and atropine hypodermically. In children the camphorated tincture of opium is preferable, as it is less depressing. Strapping of the chest wall with adhesive plaster gives wonderful relief. Occasionally mustard applied locally has helped, but often counter-irritation has added to the distress. Ice or cold applications have given much benefit.

Given early, the salicylates, particularly aspirin, are good and should be used; later the iodides are preferable. I believe they have a restricting effect on the effusion. Free catharsis, diuresis and diaphoresis should always be encouraged for the same reason. The diet light and fluids should be given in moderate quantity.

When this dry stage passes to that of effusion which continues to increase, early exploratory puncture is advisable. If the fluid is serous it is drained entirely. In four cases aspiration had to be repeated. Even where the quantity is small the puncture seems to arrest secretion and to stimulate absorption. I have observed that where the fluid was drawn the flatness disappeared completely. Dullness persisted in those cases where puncture was not deemed necessary and where absorption took place gradually. In plastic cases such a condition remains permanent, due to the organized fibrin and inflammatory thickening.

If the exploration reveals pus the needle is withdrawn. My six cases of purulent pleurisy were comparatively acute and all drained by costal resection. Five contained enormous quantities of pus. One only about half a cup which was enclosed within a wall more than an inch thick. To have found it at all was mere luck. Much sloughing followed, the temperature dropped to slightly above normal. On the fifth day following the operation the patient had a severe chill followed by a sudden rise of fever to 105° F. and delirium. During the night he vomited perhaps a cupful of thick pus which had undoubtedly broken through a bronchus. This was a case of most severe streptococcic infection in a man about 45 years of age. His condition seemed desperate, but he recovered in about six weeks and has been well and working ever since.

Some physicians and surgeons advise against aspiration, in most cases preferring to allow nature to take care of the effusion, but I cannot see the advantage of this practice as the simple method of aspiration has always proved the quickest and most satisfactory. Useless to mention, of course, that this should be done under the strictest antiseptic rules. In acute empyema with abundant non-tubercular pus free drainage is desired. Conditions are different in tubercular subjects with mixed infection having no tendency to heal. To open the pleura in those cases would certainly create an opening difficult to close. Under such conditions the method of Dr. J. B. Murphy is rational and very interesting. This, as you all know, consists in repeated tappings followed by the injection of a two per cent. formalin and glycerin solution. He claims it sterilizes the contents of the cavity gradually and eventually effects a cure.

TRIGEMINAL NEURALGIA*.

H. M. Cunningham, M. D.
MARQUETTE, MICH.

The term neuralgia is confined to a peculiar sort of pain not to be confused with the more dull and constant pain which we define as an ache. It might be defined as a pain in a nerve or nerves or radiating along the course of a nerve, with anatomical accuracy. It is characterized by severe darting or throbbing pain in intermittent attacks, with sensitiveness of the skin and tender points where the cutaneous branches are given off from the deeper parts. Trigeminal neuralgia is the most important and also one of the commonest forms

* Read before the Upper Peninsula Society, 19th Annual Meeting at Ishpeming, Aug. 6-7, 1913.

of neuralgia. Any one or all of the branches of the nerve may be involved. True or idiopathic neuralgia is an affection due to pathological changes in the nerve itself or its ganglion; but, I wish to include in a brief general consideration those pains sufficiently neuralgic in character to be termed symptomatic neuralgia. We use the term symptomatic because the pain in these cases is only a symptom of a diseased condition demanding treatment directed to its removal instead of an attack on the nerve itself, or a persistent recourse to anodynes.

True neuralgia is rare, while the symptomatic form is constantly being brought to our attention. It is not always easy to determine the exact form of neuralgia in a given case but often requires the most painstaking study. A thorough search will, however, usually reveal a removable cause. It is for this reason that I have chosen this subject for I cannot help feeling that the difficulty involved in arriving at a diagnosis too often discourages the attempt. I am frequently struck by the resigned way in which patients speak when they say: "My doctor says it must be neuralgia," as if that were a perfectly satisfactory explanation of a hopeless condition which may or may not wear off with time.

CAUSATIVE FACTORS

A partial list of conditions causing symptomatic or trigeminal neuralgia might be as follows: Eye strain, glaucoma, iritis, carries of the teeth, osteo-mylitis of the jaw, pressure on nerve filaments in the mucous membrane of the nose, disease of accessory sinuses, tumor pressing on the nerve trunk, and toxic conditions of the blood.

PAIN

Unfortunately, the location of the pain is not a very dependable symptom, as pain in one branch may be referred to another that is possibly quite distant. This is very common in dental carries and is often so in diseases of the sinuses as will be seen in some of my case reports which I will give later. We are fairly safe, however, in presuming that the trouble is located on the same side as the pain.

DIAGNOSIS

The method of diagnosis by exclusion is especially indicated here. Suspect every possible source of origin until by careful examination it is proven not guilty. The history may help somewhat. For instance, the presence of a coryza would suggest the probability of internasal trouble. These cases are also apt to be worse when lying down as the capillaries of the nasal mucous membrane are more engorged when the head is low. Use of the eyes brings on or aggravates an attack due to the eyes. Failing to find trouble in the eyes or nose, the teeth should be examined. This should be done by the dentist, but one can often arrive at a probable diagnosis by finding a tooth that is sensitive to tapping. If in the upper jaw, however, one should be very careful to exclude a possible source in the nose or its accessory sinuses before the teeth are extracted.

I have no hesitation in saying that tons of teeth have been sacrificed in vain endeavor to obtain relief from pain due to other causes. Almost every patient who has had neuralgia for any length of time has had some teeth extracted, frequently all of them for that reason. I do not wish to be understood as saying that neuralgic pains are not frequently caused by diseased teeth. On the contrary, this is a very common cause indeed as everyone knows. Scarcely a week passes in which someone does not come in complaining of earache when the trouble is not located in the ear at all but is due to a diseased tooth. Also, I always advise getting rid of hopelessly diseased teeth as a general principle of mouth hygiene, but what I do protest against is the extraction of teeth that could be saved, and this often before any attempt is made to ascertain the possibility of disease elsewhere.

That eye strain can cause neuralgic pain I have experienced myself, for the first evidence I had of eye strain was a severe neuralgic pain in my right eye that kept me from sleeping two successive nights.

Glaucoma can also be mistaken for neuralgia as the following case will show.

Mrs. Mary T., aged 60, came to me with complete blindness of the left eye, which she thought was due to cataract, but proved to be absolute glaucoma. She gave a history of having had a number of attacks of what she called neuralgia. She had never consulted an oculist, having relied upon the services of a peddling optician who also attributed her attacks of pain to neuralgia. She admitted that the eye itself became somewhat inflamed during these attacks but considered this quite natural. This eye might have been saved but is now completely lost. I admit that she belongs to an unusually stupid family, as her daughter refused to submit to an operation for acute mastoiditis until she was completely prostrated, on the ground that the pain and tenderness of her mastoiditis was due to neuralgia, with which she was frequently troubled.

In iritis the pain is frequently referred to the temple and I have seen several cases where the eye has been permanently damaged through a mistaken diagnosis of neuralgia.

While neuralgia due to the eyes is usually confined to distribution of the first branch it is not true that the pain in this region is always due to the eyes, for a disease of the nose and its accessory sinuses not infrequently causes pain that may be wrongly attributed to the eye.

Miss Lena M. complained for several days of a pain back of her left eye which she thought required a change of glasses. The eye was painful to pressure and she said it seemed to be "trying to pop out." An examination of the eye failed to reveal anything except the tenderness; the nose showed nothing especially abnormal but the transillumination test gave a decided opacity of the maxillary antrum. The introduction of a trocar through the wall of the antrum gave vent to a literal squirt of pus and gas.

I shall never forget this case on account of the high pressure and the presence of gas, showing how completely the cavity was closed. This is the only time that I have ever recognized gas in a maxillary antrum.

I had another case last winter where disease of the maxillary antrum caused a typical supraorbital neuralgia.

Mr. C. B. D.—Transillumination showed the left antrum dark, but from the pain and tenderness I suspected a frontal sinusitis. Treatment directed to establishing natural drainage failed to give relief. Puncture into the antrum, however, gave exit to a quantity of pus with immdiate relief of pain over the eyebrows. Irrigation of the antrum alone for about a week removed all symptoms, proving that it was simply a case of empyema of the maxillary antrum.

Inflammation of the frontal sinus, especially when acute is frequently accompanied by neuralgia of the supraorbital nerve. In fact, this is one of the cardinal symptoms. The pain seems due to retention; there is usually a history of a preceding coryza. Inspection of the nasal cavity may show nothing but the inflamed mucous membrane. Upon shrinking the membrane in the region of the *hiatus* with eocaine and adrenalin one can sometimes have the satisfaction of getting entrance to the sinus with immediate relief; but, usually it does not discharge freely until an hour or so afterward. A good, active purge and hot applications hasten the desired result. When we consider the nerve supply of the nasal mucous membrane we can easily see that the first and second branches of the trigeminal nerve can readily be affected by pathological conditions in the nose.

When there are points of contact between the septum and either of the turbinates it needs only a hyperemia to bring about pain. The commonest conditions are a crest or ridge on the septum or an impacted middle turbinate. As an example of the latter I will cite this case.

Miss M. H. had neuralgic pains over the whole right side of her face and extending into the ear. She thought this was due to her teeth but her dentist assured her that this was not so. At the time I saw her she had been under the constant care of her physician for a month and was unable to remain at her work, which was that of a clerk. Inspection revealed an impacted middle turbinate the cocainizing of which gave instant relief which lasted for about two hours, when the pains returned as bad as ever. After repeating the performance she readily agreed to the amputation of the offending turbinate. The operation disclosed a large cell in the anterior end of the middle turbinate which was lined by a polypoid membrane. This gave complete and permanent relief.

In looking over my case records I find the pain in most impacted middle turbinates was referred to the region of the eye and that many of them came thinking the eyes were at fault. In some I had proceeded at once to the treatment of the nose, but in others I failed to attach due significance to the nasal conditions until glasses failed to give relief.

Mrs. C. C. came complaining of severe neuralgic pain in her right eye, worse at night. She was wearing glasses which seemed to be all right. She denied any trouble whatever in her nose but an examination revealed an impacted middle turbinate on the same side as the pain. I gave an opinion that the nasal condition was to blame but the pain was so entirely confined to the eyeball that she could not believe it. She insisted on a change of glasses which was made without relief. Finally she could stand the pain no longer and was driven, as she expressed it, to try anything. An amputation of the right middle turbinate gave complete relif.

Disease of the ethmoidal cells can also cause neuralgia. A very interesting case comes to my mind in this connection.

Mr. R. B. complained of severe neuralgia over his left parietal region which he attributed to an injury of his skull several years before. He was about to submit to an exploratory operation at the site of the old injury when his physician sent him to me for an examination to exclude a possible internasal cause. I found an impacted middle turbinate on that side and removed it. This gave him temporary relief, and we were beginning to hope that we had struck it, when the pain returned. There was no pus whatever in his nose, but I could not help feeling that we were on the right track and gained his consent to an exploration of his ethmoidal cells. I opened up the posterior cells first, thinking that the most likely region, seeing that the pain was so far back, but found nothing. I was just getting discouraged when upon opening up the most anterior cell of all I was rewarded by a gush of creamy pus. This proved to be the whole trouble as he has been entirely free from pain for seven months.

I do not wish to tire you by a multiplication of case histories and trust that the few typical cases mentioned will suffice to leave the impression that the eyes and nose often cause neuralgia. The toxic conditons like syphilis, malaria, and intestinal toxemia must not be overlooked as possible causes, but, coming directly within the sphere of the general practitioner you are, doubtless, more familiar with such cases than I am.

I should like, however, to mention two cases: My first frontal sinus case had been treated for over a month for malaria by a man who had the largest practice in the city. In the second case the boot was on the other leg, for as I was about to operate for frontal sinusitis my patient was cured by a dose of castor oil.

IDIOPATHIC NEURALGIA

We come now to the consideration of true or idiopathic neuralgia. This terrible affliction is fortunately rare. The exact pathology is still under dispute. It comes most frequently to those who have passed middle life and whose resistance is poor. If, after exhausting every means of diagnosis, we are forced to make one of true neuralgia what are we going to do? Medical treatment is without avail. Nothing but morphine will give relief and it is out of the question to keep these people under morphine for any length of time. Various expedients have been tried with varying success. The first attempt to give relief was the method of cutting the nerves as they emerged from their *foramina*. This succeeded in giving temporary relief but the period was so short, owing to the rapid regeneration of the nerves, that means were sought to prevent this. Pieces of the nerve were excised, but this has not proved much better. Next an attempt was made to prevent the recurrence by loosening the nerve from its foramen and by twisting and pulling to break it off as far back as possible in hope that the foramen would be so completely closed as to prevent renewal of the nerve trunk. This also was disappointing. The next step was the extremely radical one of opening the cranial cavity and excising the Gasserian ganglion. This gave permanent relief, but the operation was so formidable, with a high death rate and grave complications, that, while it is still being done, the search for a simpler method is going on.

NERVE INJECTIONS

Several methods of injecting the nerve trunk with some substance that will delay the return of its conductivity for a reasonable period have proven fairly successful. So much so that some, at least, of the best operators on the Gasserian ganglion advise that the injection method be tried before resorting to the major operation. The various substances used are: osmic acid, alcohol, alcohol and cocaine, and alcohol and phenol.

Various sites of injection are also chosen and may be divided into two classes—Peripheral and Deep. Peripheral injection would be made in the branches of the nerve at the points of exit from their foramina, i. e. supra-orbital, and infra-orbital. Deep injections are made in the trunks of the second division or supramaxillary nerve as it merges from the foramen rotundum and the inframaxillary trunk at its exit from the foramen ovale. It is not advisable to inject the main trunk of the ophthalmic branch as it is dangerous, but where necessary neuralgia of this branch can be controlled by injecting the peripheral twigs. The sphenopalatine ganglion can also be injected through the sphenopalatine foramen which lies just behind the posterior end of the middle turbinate.

The technic of these injections has been carefully worked out and they present no special difficulty to one whose tactile sense is fairly well developed. The procedure is not claimed to be a permanent cure but the period of relief lasting from four months to four years is complete and the injection can be repeated when necessary. I have made but one deep injection but the result, while not so lasting as one could wish, was certainly such as to make me enthusiastic over this line of treatment in cases that require it.

Mr. W. H., aged 70, had been troubled with neuralgic pains in his face for several years, which gradually grew worse until he was in a most pitiable condition. The slightest stimulus to any part of the region supplied by his left trigeminal would bring on a spasm of the most excruciating pain. He could not wash his face, brush his teeth, blow his nose or even eat and drink without bringing on an attack. He had had several teeth out thinking they might be at fault, but his dentist knew enough to refuse to extract the others which were quite sound. He was very intellignt and gave me the most satisfactory co-operation, but after a week of searching and experimenting, during which I removed his middle turbinate and explored his antrum we were forced to the conclusion that we were dealing with a case of genuine neuralgia and decided to try the deep injection of the middle branch. Fortunately, we struck the nerve at the first attempt. This gave him complete anesthesia of the region supplied by the supramaxillary branch and complete relief from the pain. It was most gratifying to see the change in the man the next day. He looked ten years younger. I regret to say, howver, that he has had complete relief for only about four months and that his attacks are gradually beginning to return. I have advised him to submit to another injection which may be more successful and I think he will do so soon.

Very recently a method has been suggested and the technic worked out of injecting the Gasserian ganglion by reaching it through the foramen ovale. Theoretically this would cause, a permanent degeneration of the cells of the ganglion and would seem to give promise of being the operation of the future. A number of cases have been treated this way but sufficient time has not elapsed to prove the superiority of this method over the injection of the trunks. I may add that the injection method is comparatively free from risk and does not preclude a resort to the more difficult and dangerous inter-cranial operation later, if necessary.

I will bring this paper to a close by repeating that the neuralgia that we commonly see is of the symptomatic type and that much can be done for these sufferers. Do not be content with saying it must be neuralgia, but try to discover the underlying cause; if you cannot, send them to someone who you think may do so.

THE DIAGNOSIS AND TREATMENT OF EXTRAUTERINE PREGNANCY*

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When the fertilized ovum is arrested at any point between the Graffian follicle and the uterine cavity and there undergoes development, we designate the condition as an extra-uterine or an ectopic pregnancy.

The diagnosis of an extra-uterine pregnancy is usually easy to make; the diagnosis, however, varies according as the sac is ruptured or unruptured and the fetus alive or dead.

Fully twenty-five out of every thirty cases of ectopic gestation present symptoms by which a presumptive, if not a reasonably certain diagnosis may be made prior to the patient's arrival at a dangerous stage. There are instances in which the first complaint is of a nature to cause the greatest alarm to the physician and friends—because the patient may be brought to the verge of death at once—but such cases are rare, and very seldom met with in the practice covering many years of an individual practitioner, yet such may be the misfortune of some here to-day.

DIAGNOSIS

To simplify the detection of an ectopic pregnancy and an early diagnosis, I wish first to call your attention to what I consider two distinct stages of the disease: namely, the simple and the alarming stages. Most cases present a group of symptoms preceding the alarming stage. I wish to make the following assertion, based mainly on the study of such cases for the past thirty-one years, patients operated on and a few not operated on, but diagnosis made at autopsy:

SIMPLE STAGE

When any woman after puberty and before the menopause, who has menstruated regularly and painlessly, goes four, five, eight, ten, or twenty days over the time that menstruation is due, sees blood from the vagina, differing in quality and color, quantity or regularity from her usual menses, and has pains in one side of the pelvis, generally of a severe nature, ectopic gestation may be presumed.

Two items of greatest importance in arriving at a presumptive diagnosis of ectopic gestation—in the simple stage—are atypical menstruation and pain. The atypical menstruation of ectopic gestation is a misnomer, though useful, as it directs attention to the appearance of blood, though differing from the regular menstrual flow; it may be greater and it may be less in amount; it may be continuous or it may be interrupted; it may be darker or it may be of a browner tint than the normal menstrual flow.

The metorrhagic blood of ectopic pregnancy very often has a sort of gelatinous character, so that I at times have imagined I could almost diagnose ectopic gestation, by the tactile sense of my fingers. The woman of moderately good perception will describe wherein the atypical menstruation differs from her usual menstruation.

As an aid in diagnosis careful history taking is of vital importance; note the date preceding and the character of the menstruation preceding the atypical menstruation; if the patient has been accustomed to painful menstruation analyze the character of her dysmenorrhea and ask her particularly if the pains differ in any way from her former pains; if the patient is ordinarily intelligent, she will tell you she has never had pains of this character.

Morning sickness and enlargement of the breasts which are the ordinary symptoms of intra-uterine pregnancy, is of rare occurrence. In extra-uterine pregnancy, upon your first visit, invariably the patient will tell you she has aborted, or is about to abort, but still is bleeding and has pains; the pains are very severe at times and the abdominal muscles rigid.

The colic in tubal pregnancy is often mistaken for intestinal colic, it may not cause the patient to rest but momentarily from her occupation, occasionally jarring of the body or being on the feet cause so much pain that the patient may remain in bed for shorter or longer intervals.

In the simple stage of ectopic gestation the pulse usually remains about normal, the temperature, like the pulse, remains unchanged.

ALARMING STAGE

The alarming stage of the disease is ushered in by severe colic, pallor of the skin, weak and rapid pulse, a fall of temperature of one, two or three degrees below normal, rapid breathing, vomiting, restlessness and fainting. The pulse may range from 120 to 160 and it may not be possible to count it at the wrist.

PHYSICAL EXAMINATION

The physical examination of an ectopic gestation produces more varieties of conditions in the pelvis than almost any other disease; the size of the uterus is seldom changed and the cervix not altered in size or consistency except in rare cases; if the uterus is lifted pain is experienced on the side of the pregnant tube.

In simple cases the tube is sufficiently enlarged to be measured by bimanual examination. Whenever pain is experienced it is

* Read before the 19th Annual Meeting of the Upper Peninsula Medical Society held at Ishpeming, Mich., Aug. 6-7, 1913.

probable that a little hemorrhage has occurred within the tube. A pregnant tube is always tender upon pressure and may be imbedded in blood clots.

If a large hematocele has formed, the uterus may be carried upward and outward and generally pushed to the side opposite the pregnant tube and in some cases one will experience difficulty in reaching the cervix. The following are some of the conditions that simulate tubal pregnancy and must be differentiated: abortion, salpingitis, cancer of the uterus, ovarian tumors with twisted pedicle, normal pregnancy with hemorrhage—simulating menstruation for the first three months. It is not unusual for a patient to have a prolonged menstruation in acute salpingitis, but fever and previous menstruations will clear up the case, and the patient with chronic salpingitis rarely goes over her time and usually menstruates earlier.

Failure to always differentiate tubal pregnancy and salpingitis is of little consequence, as an operation for one will demonstrate the other condition.

Uterine polypus and papilloma uteri produce menorrhagia and metrorrhagia, but in the majority of cases produce no pain or tenderness in the region of the tubes.

Cancer of the uterus it is only necessary to mention as the gross pathological changes will make the diagnosis easy.

A twisted pedicle in an ovarian cyst affords one of the best counterfeits of ectopic gestation. The enlarged fallopian tube, the steady pain and the atypical menstruation, the soreness of the abdomen and the fact that it springs from one side of the pelvis and lack of knowledge of the tumor makes for the physician a most difficult proposition, unless he makes sure the menstruation is not delayed.

TREATMENT

On account of the imminent danger to the life of the mother in extra-uterine pregnancy in the early months before the viability of the child, to defer the active treatment in such cases can only be charged to sentimentality or ignorance.

In. Prof. Olshousen's clinics, of upwards of forty years of active practice in the gynecological department of the University of Berlin, shows only sixteen per cent. of recovery under the expectant plan of treatment.

A. Martin has shown thirty-six per cent. in 275 cases by the expectant plan and 76 7-10 out of 515 cases under operative treatment, excluding the moribund and infected cases. The mortality would not exceed five per cent.

The plans of the treatment differ so widely, early and late in the pregnancy, that I shall deal with them separately.

When the diagnosis of an unruptured extra-uterine sac is made, the operation should be performed without delay; the technic differs but little from that for the removal of an ovarian tumor or hydrosalpinx. Care must be taken not to rupture the sac, as there is liable to be profuse hemorrhage. If in doubt it is well to clamp the ovarian vessels at the pelvic brim, and the uterine vessels at the cornu, thus controlling the circulation of the sac which is then removed with ease and the abdomen closed without a drain.

After rupture, when the patient has recovered from the shock by rest and stimulation by the use of normal salt injections into the cellular tissue under each breast,—the importance of this injection cannot be over-estimated—the collapsed patient rapidly revives, the pulse gaining in volume and diminishing in frequency. Here one can wait for several days with safety, providing the patient is under constant observation, and with better hope of recovery of the patient when all signs of shock have disappeared. Nature has walled off the blood collection, it is no longer free in the abdominal cavity, but it situated in the most dependant portion and there separated from the general peritoneum.

I realize this is contrary to the opinion of many operators, and make this point with full knowledge of severe criticism which makes for success or failure in this especial operation, and beg leave to report cases to substantiate my assertions, and to cast a ray of hope to the general practitioner far removed from hospital assistance and consultation of brother practitioners—that a ruptured tube is not as dark as sometimes painted.

CASE REPORTS

Case I. Mrs. P., age 35, married 16 years, two children, eight years apart, no abortions. She had menstruated normally every four weeks, her last normal menstruation occuring Aug. 25. On October 12, blood began to appear from the vagina, in connection with this metrorrhagia she had what she termed "terrible" pains, most severe in the right iliac region.

I made a presumptive diagnosis of tubal pregnancy; colics occurred within two or three hours from the appearance of blood, some days the blood was bright and at other times dark and chocolate colored.

During my absence from town for a few days she was seen by another physician who claimed she had aborted, but the metrorrhagia continued. On Oct. 25th she was awakened with severe colic followed by weakness, rapid and weak pulse with every appearance of dissolution. I immediately injected normal salt solution and the following morning removed her to the hospital. She steadily gained for four days; on the fifth was operated with an uneventful recovery.

Case II. Mrs. Y., age 32, married seven years, menstruated regularly every 28 days, accompanied by severe pain for first day. About four years ago menstruation was delayed about two months. She was taken with severe pain in the hypogastric region; the following day she had another severe

attack of pain in the lower abdomen. Was removed to St. Joseph's Hospital at Hancock, where she remained four months in bed with a presumptive diagnosis of tubal pregnancy, but no operation was performed. She partially recovered her health. Two years after, I was hurriedly called by her husband, who stated that she was dying. I found her in complete collapse, weak pulse, impossible to count at the wrist and constant vomiting. She was immediately taken to a hospital. Injection of salt solution and absolute quietness for three days. On the fourth day she developd some temperature and was operated the same afternoon; removing about one pint of fluid blood and a great many clots. She made a slow but perfect recovery and at the present time is enjoying very good health.

I feel confident if these patients had been operated on immediately that they would have proven fatal.

APPENDICITIS IN INFANTS*

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The conviction that inflammation of the vermiform appendix is decidedly more common in infancy than has heretofore been supposed offers the excuse for this paper. A series of cases of appendicitis in infants prompted me to consult the literature bearing on the disease. This perusal, together with a study of my own cases forces me to believe that the peculiarities of the disease in childhood and infancy are sufficient for special mention.

While appendicitis is relatively rare in infancy, it is by no means so infrequent that we should not consider it a possibility when a child presents symptoms of intestinal or abdominal disease. In 1,223 cases of appendicitis at Johns Hopkins' Hospital there were 9 instances of the disease in patients under five, and 50 between five and ten years. The disease has been observed in infants six, seven, and nine weeks old. Personally, I have had an opportunity to study suppurative appendicitis in an infant of eleven months, one at fourteen months and another at eighteen months. Besides these I have had four cases in patients from three to six years of age. My total number of cases at all ages has been less than thirty. My experience is a bit unusual, especially when compared to Doctor McCosh, who personally observed one thousand cases, only 17 of which were in patients under five years and but 4 under the age of two years.

As in adults, male children are more prone to the disease than females.

ETIOLOGY

We have little positive information as to the exciting cause. Whether preceding gastro-intestinal symptoms are the cause or the result of a diseased appendix is a mooted question. A great many able clinicians believe that chronic or acute gastro-intestinal disease, which finally attacks the mucosa of the appendix, is a prominent etiological factor. On the other hand most surgeons incline to the view that any preceding gastro-intestinal disturbances are purely symptomatic and are due entirely to the diseased appendix. Reasoning from analogy and recalling what we know of the symptomatology of chronic appendicitis as seen in adults, I think it likely that the latter conception is the correct one. A fecal concretion is usually present and it is quite probable that it may be a factor in inducing the acute attack. Pin worms are oftentimes *habitats* of the appendixes of young children and it is believed that they may induce an acute attack. The usual pus producing bacteria are always present either singly or in combination.

SYMPTOMS

That classical and characteristic array of symptoms of pain, nausea, abdominal sensitiveness and fever as seen in the adult, and occuring in the order mentioned, probably holds equally true for infants. The great difficulty, however, lies in a correct interpretation of the symptoms as seen in the infant. The pernicious habit of administering an opiate to every child who has an abdominal pain serves only to obscure the symptoms and cannot be too severely condemned. Pain is always present but its localization and degree is difficult to determine. The pain is frequently referred to the back, hip, or elsewhere. In fact, referred pain is very common in childhood. In this connection I have only to mention the abdominal pain of which children, who have pneumonia or pleurisy, so frequently complain; likewise the knee pain of hip joint disease.

It is said that vomiting is invariably present. The last infant I had suffering from this disease did not vomit. However, the child was manifestly nauseated from time to time as indicated by a sudden palor, clammy brow and a positive disgust at the sight of food.

The determination of local tenderness depends somewhat upon the temperament of the child but more upon the patience of the physician. If one is not too careful of his time local sensitiveness can usually be made out. However, it must be admitted that abdominal palpation is oftentimes unsatisfactory in a child as the little patient frequently screams constantly and a crying child always has rigid abdominal muscles. Local tenderness can always be made out, however, if the child is examined while asleep or partially so. A little pressure over the sore area will make the child wince. This is positive information

* Read before the regular meeting of the Gratiot County Medical Society Aug. 14, 1913.

and is invaluable. In children, who will allow it, a slight pinching of the skin over or near McBurney's point will elicit intense pain.

The inflammatory tumor is much higher than in adults as the appendix and caecum do not reach the iliac fossa until the child is about four years of age. In fact the tumor is situated so high up that it is easily mistaken for pus retention, or a tumor of the right kidney. The tumor is not at all difficult to make out if one palpates the child's abdomen while it is sleeping or under an anæsthetic. Rectal palpation should never be neglected for one can feel the inflammatory mass either in or above the right iliac fossa.

The child may be and usually is constipated, although diarrhoea is more common than in adults. Early and persistent bladder irritability is a very common symptom. The flexor muscles of the thigh are in a state of reflex spasm, hence the thigh is flexed on the pelvic bones in a very characteristic manner. A babe with appendicitis will almost always lie on its right side or back with its legs drawn up. The blood examination shows a leucocytosis. This is especially true of the suppurative variety and is of distinct value in making a differential diagnosis.

DIAGNOSIS

The diagnosis of appendicitis in children presents difficulties which do not obtain in adults. In adults a carefully obtained anamnesis oftentimes suffices to cinch the diagnosis. In infants the history is unreliable and cannot be depended upon. Intussusception is common in infants and as it is more often the ilio-caecal variety it may give rise to difficulties in diagnosis. In intussusception, however, blood is almost invariably found in the stool although it may be necessary to employ the chemical reaction to demonstrate occult blood. Usually, however, blood-stained mucus appears early. In intussusception, too, there is not the early rise of temperature nor the same early increase in the white blood cells, each of which constitute early and important symptoms of appendicitis.

As an aid to diagnosis I would urge palpation of the abdomen while the child is under an anæsthetic. A few years ago I gave a colicky babe an anæsthetic to arrive at a diagnosis. It afterward occurred to me that this maneuver was a bit unusual, and, as I had not seen it mentioned in the text books, I was entertaining some self congratulatory views on having discovered a new and to me, a very valuable method of examination. Before trying to publish it, however, I decided to review the literature. I was disillusionized on finding that a certain Doctor Gibb, who resided in an obscure town in Kansas had, somewhat previously, given an anæsthetic to a colicky babe to enable him to make a diagnosis. This was in 1905, whereas my method was in 1907. This incident is the only one which has ever made me regret not having been born a few years earlier. Dr. Gibb published it, remarking on its value, and, very properly I think, suggested that the supposed infrequency of appendicitis in infancy may be due to its not being recognized.

Acute indigestion with colic will simulate appendicitis very closely, but a few hours' observation will enable one to differentiate. From pleurisy or a right sided pneumonia the diagnosis may be impossible for a few hours. Children with either disease may complain of abdominal pain and have a distended and rigid abdomen, together with vomiting. In the course of twelve or twenty-four hours, however, the chest symptoms are paramount.

The obscure condition known as cyclic vomiting should cause no special difficulty to arise. In cyclic vomiting there is no pain; the vomiting is profuse and frequently repeated, ceases suddenly, and the abdomen is hollow. In addition there is an early acetonuria.

PROGNOSIS

When people become educated to the point where they are less apt to look upon gastro-intestinal disturbances in children as a matter of course, but regard them, as is frequently the case, as symptoms of a serious affection, the prognosis, which depends so much upon early diagnosis and treatment, will be much better. All writers comment on the high mortality of appendicitis in children. Children do not have the resisting power to disease of the peritoneum that adults have and general peritonitis is much more common than in adults.

Two French writers, E. Kirmisson and M. Guimbellot, report a case in an infant of eleven months whose appendix was removed sixty hours after the first symptoms, but the child did not survive the day. These writers have found twenty-six somewhat similar cases in the literature, nine in infants under twelve months, and seventeen in the second year. Of the total number nineteen died and seven recovered, all of the latter being over eighteen months of age. Appendectomy was done in nineteen cases with recovery in seven. The only children who recovered were those operated on at once. These figures indicate that the younger the child the worse the prognosis. They also disclose the significant fact that the earlier the operation, the lower will be the mortality.

I have operated upon six infants, three of whom were under two years of age. All of these were of the suppurative variety. The appendix was removed in two, split open and

left *insitu* in one, undisturbed in three. Thus far my mortality is *nil* for which I am profoundly thankful.

TREATMENT

Early surgical intervention is the only course to be advocated in the suppurative variety. The catarrhal or congestive type go on to recovery regardless of whether we narcotize or purge the little patient. As there is no way to tell which patient will have the abscess, all should be operated on as soon as the diagnosis is made. The operation should consume the least possible time. Children stand short operations well but may be needlessly lost through prolonged or ill-advised efforts to do more than is absolutely essential.

CONCLUSIONS

1. Appendicitis is a serious and common disease of childhood.
2. The symptoms require careful interpretation.
3. The diagnosis is facilitated by examining the child under an anæsthetic.
4. Children are less resistent to bacterial invasion than adults and general peritonitis is more common.
5. Prompt surgical measures offer the greatest hope of success.

CLINICAL CASE REPORTS

IMPERFECTLY DESCENDED TESTICLES—SHOWING AN UNUSUAL FEATURE.

H. A. Sharpe, Ph. C., M. D.
L'Anse, Mich.

A somewhat thorough search of the literature leads me to believe that the case herewith reported is unique from the close proximity of the undescended testicles. Before undertaking this particular operation I went carefully over the literature for the past six years and I was amazed at the marked dissension of opinion among noted operators along these lines.

Such a state of affairs showed clearly that we have no ideal operation for this condition. Steinman[1] advocates reduction of testicle restoring same to abdomen with the subsequent injection of paraffine for artificial testicles. Thus he states that the tendency to hernia is combated. W. W. Golden[2] reports translocation of testicles from an injured scrotum into the abdomen. Patient had erections and emissions. Rawlings[3] states that in double incomplete descent, abdominal replacement has been advised but does not agree thereto for: (a) abdominally replaced testicles almost certainly lose their spermatogenetic power; (b) whereas pubic, inguinal and pubo-scrotal organs retain in 40 per cent. to 50 per cent. their spermatogenetic power up to the age of 30 to 40 years. Coley[4] states that from 128 personal operations (a) undescended testicles are almost invariably of little or no functional value; (b) undescended testicles in children should never be sacrificed; and rarely ever be operated upon under 8 years of age; (c) the main principle in these operations are the free opening of the inguinal canal and the bringing of the testicles into the scrotum. Villemin[5] from his operations on 300 cases of undescended testicles advocates: (a) refraining from operating on young children when there is absence of hernia or pain; or when the testicles are in the abdomen and behind the peritoneum, but he does operate when there is concomitant hernia and pain. He states that after the age of 10 years that spontaneous descent of the testicles are rare. Bland Sutton[6] points out that the imperfections of an undescended testicle are the cause and not the consequences of its failure to reach the scrotum. He also states that such organs are more liable to malignancy and that to retain such an organ may be described as supererogative.

PATIENT'S HISTORY

Patient's History—Age 11 years; school-boy; had always been bright and healthy and was of the average development for a boy of his age. The parents up to one year ago had never examined the boy's scrotum and were unaware that both testicles were absent. At this time the boy was carrying a heavy box from the store to his home, one corner of which was pressing over the left inguinal region. He was seized suddenly with an intense and excruciating pain over that area and he was carried home and I was summoned.

Examination—Examination revealed the absence of both testicles from the scrotum, the left being located in the left inguinal canal, very sensitive and was the cause of his present trouble, having sustained trauma while carrying the box. With the ordinary palliative measures tenderness passed away.

Subsequent History—One year later, May 10, 1911, while playing he was struck with a ball in the left inguinal region causing a recurrence of the symptoms, but more severe; he was confined in the bed for 3 weeks and recovery was slow. The testicle remained about twice its previous size and very tender. Under the circumstances I recommended surgical measures in order to retain the function, for with repeated trauma and subsequent inflammation it would deprive it of its spermatogenetic function. On July 1, the following operation was performed:

Operation—The inguinal canal was opened for its

1. Correspondenz-Blatt f. Schweizer Aerze, Basle.
2. Journal A. M. A. June 8, 1908, Page 1934.
3. Rawlings, The Practitioner, London, Aug., 1908.
4. Coley, Annals of Surgery, Sept., 1908.
5. Annales de Medecine et Chirurgie Infantiles Paris, Jan., 1909.
6. Bland Sutton, Practitioner, London, Jan., 1909.

entire length as for the Bassini Operation. The testicle as it lay in the canal was picked up and loosened from the surrounding connective tissue and temporarily held away from the field of operation. An incision was made in the posterior wall from the internal ring to the pubic bone, posterior to the external ring. The internal ring was destroyed and this brought into view the peritoneum, vas, and spermatic vessels. Traction was now made on the testicle, gradually loosening the cellular tissue, when there appeared at the new inguinal opening a mass of connective tissue in which was imbedded an apparently normal testicle, which was easily separated from the mass. Upon further traction on the first testicle, the second followed readily and soon I had both testicles in the scrotum; both spermatic cords lay in the new inguinal canal and ring. The inguinal canal was repaired and the ring closed, leaving both cords lying in the new ring posterior to the original ring. Both testicles were sutured to the scrotum. One testicle remained in the normal location and the second remained immediately above it but well within the scrotum.

Postoperative History—I had occasion to examine this boy from time to time during the next 8 months and both testicles remained well within the scrotum, on the left side; the one lay immediately above the other. Although the first testicle remained somewhat larger than the second it is my opinion that both retained their spermatogenetic function.

Personally, I consider the Walther technic an excellent procedure and one worthy of consideration. It consists of slitting the septum and bringing the undescended testicle through to the opposite side. The cord is anchored high up. This method reduces to a minimum its liability to retraction.

CONCLUSIONS

(a) Undescended testicles causing no trouble should be left alone. (b) Undescended or partially descended testicles when demanding surgical interference, should preferably be brought into the scrotum, rather than being replaced in the abdomen.

The Doctor.

The remarkable story of the Marietta, O., doctor, who, suddenly bereft of his sanity, vivisected a patient on the operating table, might be employed in commenting on different phases of life which it touches, but perhaps in nothing more profitably than reflecting a little on the demands exerted on the medical practitioner generally.

The doctor has become not only healer in the flesh but counselor to the spirit. He is the secular father confessor. The current running through the doors of his office brings him every ill to which man, soul and body, is heir. He must incline his ear to stories of degradation, of sordidness, of hopelessness, even more than to symptoms of physical ill. Even if he is not a compassionate man—rare among doctors—he has a professional appreciation of the value of cheer, of renewed courage, in combating bodily diseases, and he feels it incumbent to fortify his medicines with advice, with moral assistance.

To his consulting rooms are brought not only the weaknesses but the injustices and the misfortunes of life. When his training and his experience point the way surely through diagnosis to cure, how often his pencil is halted on the prescription pad as he hears the recital of poverty! Before him is a woman, or a child, wasting away through overwork, or mal-nutrition. He knows the cure: Rest, plenty of wholesome food, recreation, change of environment. He has to change the prescription to read: Tonic—and not infrequently has to supply the 50 cents that the druggist will charge.

All the while he has the work of maintaining himself and his family. His hours are long, his life irregular, his labor near incessant. He must find time to keep abreast of a science that is developing faster than most sciences, and with him constantly, if he is true doctor, is the unresting ambition to add something to the store of that science.

The complexities of modern life bear on none harder than on the doctor; for on him reacts not only his share, but a large portion of everybody's else. It is surprising that he so seldom breaks down under the strain imposed on him. It is not at all to be wondered that when the doctor at last manages to get away from his practice on the vacation for which he has to maneuver hard, he travels, as often he does, in careful disguise, lest the ailing and troubled mortals about him close every avenue of escape.—*Detroit Tribune.*

The Value of Tuberculin.

First—That providing reasonable care be exercised, no harm will result from using tuberculin in cases of advanced sub-acute and chronic ulcerative pulmonary tuberculosis.

Second—That a few cases, perhaps one in five, will show a very striking improvement from the use of tuberculin.

Third—That a much larger proportion, perhaps 50 per cent., will do well while taking tuberculin and improve moderately. This may be shown by gain in weight, reduction of temperature, lessened cough and expectoration, improvement in physical signs, or disappearance of subjective symptoms; but the benefit is apt to be only temporary.

Fourth—That the remaining cases show no improvement, the natural course of the disease being entirely unaffected by tuberculin injections.

Finally the writer agrees with Francine and Hartz, who recently tried tuberculin in a series of chronic fibroid phthisis cases and concluded, "that in advanced chronic tuberculosis when there is fair resistance and little or no fever, tuberculin is unqualifiedly a valuable therapeutic measure."—Lohman: *Long Island Med. Journal.*

Emetic Action of Digitalis.—Cary Eggleston concludes that there is no valid experimental or clinical evidence that therapeutic doses of digitalis cause nausea or vomiting through local irritant action of the alimentary tract, but that there is much evidence that the vomiting is not caused by such local action. He states that there is experimental evidence that the nausea and vomiting resulting from therapeutic quantites of digitalis principles are due solely to their action on the vomiting center and therefore result only after the employment of a sufficient amount of drug. Eggleston concludes that it is fallacious and irrational to attempt to avoid these symptoms resulting from the oral administration of any given digitalis preparation by resorting to another preparation or to another channel of administration (Jour. A. M. A., Sept. 6, 1913, p. 757.)

Forty-Eighth Annual Meeting of the Michigan State Medical Society, Flint, Mich., Sept. 4 and 5, 1913

OFFICIAL PROCEEDINGS

The Forty-eighth Annual Meeting of the Michigan State Medical Society that was held in Flint as the guests of the Genesee County Medical Society on September 4 and 5, 1913, has been placed on record in the archives of our Society as one of the most successful meetings ever held. The total registration was Three Hundred and Sixty-five and in addition there were fifteen guests from without the state and about forty visiting ladies, making a total attendance in Flint of four hundred and twenty.

The first meeting was that of the:

COUNTY SECRETARIES' ASSOCIATION

on Wednesday afternoon, Sept. 3, at 3 p. m.

This meeting was called to order by the President, C. E. Boys, of Kalamazoo, with 23 County Secretaries responding to the roll call. The first number on the program was the President's Address, which was delivered by Dr. Boys. (This address may be found printed in full in the County Secretaries Department of this issue.)

At the close of Dr. Boy's address, Dr. W. H. Sawyer, President of the State Society, spoke to the secretaries on Society Work.

Dr. Roland Clark, Secretary of the Wayne County Society, read a paper: "The Social Relationship of the County Society to its Membership." The paper provoked a live discussion that was participated in by the secretaries present.

Dr. A. R. Craig, Secretary of the American Medical Association, spoke to the members upon the work of the County Society. He imparted many valuable suggestions as to how a county society may be made a valuable asset to the doctors of every community.

Dr. E. M. Highfield, owing to inability to be present, sent his paper on: "Shall the Programs of the County Medical Society Be Made Up of Home Talent or by Invited Guests?" which was read by the Secretary. This paper resulted in a lengthy and interesting discussion. The discussion was in reality a testimonial talk on the part of each secretary in which he gave his experiences in the work of preparing programs, time of meetings, attendance, place of meetings, securing new members, maintaining the members' interest and the work entailed in being a County Secretary.

This discussion lasted until 5:30.

The following officers were elected for the ensuing year: President, Dr. C. T. Southworth, of Monroe; Secretary, Dr. C. B. Fulkerson, of Kalamazoo.

The members then adjourned to the dining room of the Flint Y. W. C. A., where all present sat down to an appetizing dinner as the guests of the Council. During the dinner informal discussions were held regarding state and county work of the organization. At eight o'clock the meeting adjourned.

The five hours thus spent in close association and in the discussion of the problems of a County Secretary cannot have resulted in anything but benefit to those in attendance, and we look for an ultimate result of better and more active county societies in those organizations whose secretary was present at this meeting.

The next meeting was that of the Council.

COUNCIL PROCEEDINGS

FIRST SESSION

The Council of the Michigan State Medical Society met in its regular Semi-Annual Session in the Masonic Temple, Flint, on September 3rd, 1913 at 8 p. m.

Chairman W. T. Dodge called the Councillors to order, and upon roll call the following Councillors responded: Biddle, Bulson, Seeley, Rockwell, Du Bois, Hume, Kay, McMullen, Baker, Dodge, Witter, and Southworth.

Absent, Councillors Ennis and Kimball.

Treasurer D. Emmet Welsh and the Secretary were also present.

The minutes of the January, 1913, Annual Meeting were approved as read.

Dr. McMullen, chairman of the Finance Committee, read the following report of the Certified Accountant whom he had employed to audit the books of the Society:

Grand Rapids, Michigan, Aug. 28th, 1913.

To the Council of the Michigan State Medical Society:

c/o F. C. Warnshuis, Secretary.
91 Monroe Ave., Grand Rapids, Michigan.

Gentlemen:—

On February 1st, 1913, I was requested by Dr. B. H. McMullen, Chairman of your Financial Committee, to audit the records and books of your society, and in compliance with his instructions I herewith present you with my report, together with such comments and suggestions as I have deemed proper to make.

The financial condition of the M. S. M. S. on January 1st, 1913, as near as could be ascertained at that time, was as per the following opening entries with which we started the new set of boks.

ASSETS.

Bond Account	$2,000.00
Savings Account	1,772.77
Savings Account	552.28
Peoples Savings Bank, Grand Rapids	1,292.76
Accounts Receivable for Advertising	364.36
Accounts Receivable, Reprints	49.50
Present worth of the M. S. M. S.	$6,031.67

I have just completed an examination of the new set of books for eight months ended August 31st, 1913, and find them correct and in good condition. The following Trial Balance Sheet, and Statement of Losses and Gains was taken from the new General Ledger, and is in my opinion correct.

ASSETS.

Bonds	$2,000.00
Savings Account in hands of Treasurer	2,325.05
Certificates of Deposit with Treasurer	3,055.00
Grand Rapids Savings Bank	249.69
Accounts Receivable	793.11
	$8,422.85

LIABILITIES.

Due Defense Fund	$ 26.00
Present Worth Jan. 1st, 1913	$6,031.67
Gain to Aug. 31 (see below)	2,365.18
Present Worth Aug. 31, 1913	$8,396.85
	$4,422.85

Statement showing losses and gains for eight months, ended August 31st, 1913.

LOSSES

Expense	
Journal	$2,493.87
Society	966.38
Reprints	241.90
Secretary	227.36
Council	135.95
General	76.43
Petty Cash	17.00
Annual Meeting	13.00
	$4,171.89

GAINS

Receipts—	
Membership Dues	$1,998.75
Journal Subscriptions	2,009.20
Advertising Sales	2,222.44
Reprint Sales	180.25
Interest	126.23
Over and Short Account	.20
Less Losses	4,171.89
Net Gain to August 31st	$2,365.18

(Signed) WALTER H. SHULTUS,
Public Accountant.

On motion of Councillor Seeley, supported by Councillor Hume, the report of the Finance Committee was accepted and placed on file.

The Chairman of the Council then read the Council's report to the House of Delegates. The report was discussed section by section, and upon motion of Dr. Biddle, supported by Dr. Hume, the following report was approved:

REPORT OF THE COUNCIL.

MEMBERSHIP

Number of members, Sept. 1, 1913	2,262
Number of paid members, Sept. 1, 1913	2,086
Number of delinquent members, Sept. 1, 1913	176

The directory of the American Medical Association gives the number of the physicians in Michigan as 4,104. From our figures it appears that we have a trifle over fifty per cent. of the profession as members of the State Society. Granting that twenty per cent. of the 4,104 are ineligible, this leaves at least one thousand doctors who should be members. It further appears that the greater number of unaffiliated doctors reside outside of the larger cities in the thickly settled agricultural area of the state. An aggressive campaign to bring these men into affiliation should be undertaken.

THE SECRETARY-EDITOR.

At the January meeting of the Council Dr. F. C. Warnshuis was elected to this position, Vice, Dr. Wilfred Haughey of Battle Creek. The relations between the Council and the retiring secretary were entirely satisfactory throughout his term of office. He was faithful in the discharge of his duties, elevated the standard of our Journal, and visited during his term of office most of the County Societies. He retired with the cordial good will of every member of the council.

The new Secretary-Editor entered upon the duties of his office with great vim and enthusiasm, and has performed a vast amount of work. A new system of records and books has been installed in the office. Nearly all the original articles and other literary matter contained in the Journal, since the February number, have been secured through his efforts. He has visited many county societies, and doubled the advertising receipts of the Journal over any previous equal period of its history.

Previous to February 1st of this year the Secretary had been paid a salary of $600 and 20 per cent. of the advertising receipts. In January we fixed the salary at $1,000, without commission on advertising receipts. Had the former law been continued the present secretary would now be receiving a salary at the rate of $1,400 per year. As to how he has succeeded in furnishing the members with a satisfactory Journal, we leave them to decide.

THE JOURNAL.

The form and size of THE JOURNAL was changed early in the year in conformity with the prevailing tendency to make the State Society Journals uniform in size. The change appears to have given general satisfaction to our members.

While THE JOURNAL is at present experiencing prosperity, the Publication Committee does not feel that it has yet accomplished the ends towards which it is striving. We hope to be able to send each subscriber in the near future, a journal containing twelve to fifteen original articles, practical and scientific editorials, and editorial comments, acquaint the profession with the news of the medical fraternity of Michigan, and to report the activities of our various county societies so that in the end, specialist, surgeon, general practitioner, in fact every member of the profession will find in *his* journal something of interest and practical value to him. The Council has the pleasure of announcing that the Clinical Society of the University of Michigan has designated THE JOURNAL as its official organ of publication. THE JOURNAL consequently will be the recipient of many valuable papers that are presented before that organization.

We propose to carry advertising for none but honest straightforward firms, such firms as we can afford to recommend and even now assure our members that business relations may be entered into with any of our advertising patrons with the assurance of receiving from them a "square deal."

At the present time THE JOURNAL is receiving from its advertisers $300 per issue. Previous to this year the receipts have averaged from $150 to $160 per issue so that for the first time advertising receipts now exceed the cost of publication. The ambitions above outlined for THE JOURNAL depend upon maintaining this increased advertising patronage. This can only be done if our members give preference to our advertisers when buying their supplies—prices being equal—and also in corresponding with advertisers to always mention THE JOURNAL. If our members will get the habit of considering themselves personally interested in the financial welfare of THE JOURNAL, the work of the Secretary will be much lessened.

NECROLOGY.

Many deaths of our members and former members have occurred since our last meeting. Notices in each case have been published in the current number of The Journal. In some instances extensive obituary notices have appeared, so that extensive reference to our deceased brothers would seem to be unnecessary at this time. We believe, however, that *one* is numbered among the many, who for so many years filled so prominent a place in the councils of the Society, that failure to pay tribute to his memory at the annual meeting following his demise would be unfortunate. We all remember the pleasant smile of our former president, E. L. Shurley, of Detroit, how faithful he was to the cause of the Michigan Medical profession, what a valuable work he did for humanity. Let us honor his memory and emulate his example.

MEDICAL LEGISLATION.

At last we have a medical practice act that protects the people of Michigan from any get-money-easy pathists that may originate in the future. Not only a definition of the practice of medicine is incorporated in the act, but various other provisions are made, far exceeding our most extravagant expectations at our last annual meeting. As the act itself and explanatory articles have been printed in The Journal, it is unnecessary to treat it extensively here Our members should be vigilant during future legislative sessions to see that its usefulness is not destroyed by future legislation.

The Society owes a debt of gratitude to many of our members who assisted in securing this passage.

THE PRESIDENT ELECT OF THE AMERICAN MEDICAL ASSOCIATION.

Our former President, and dearly beloved frater, Victor C. Vaughan, Sr., is the President-elect of the American Medical Association. A great honor to him; a great honor to Michigan; a great honor to this State Society, because he was elected in open session by a majority of members of the House of Delegates of that great Association. We regret that, as the retiring President Jacobi remarked in his closing address: "The President of that body has been divested of most of his powers." Otherwise the talents of our distinguished friend might be more effectually exercised for the upbuilding of that great Association. The Association honored itself in choosing our brother for its presiding officer.

HONORARY MEMBERS.

We recommend that:

Dr. John B. Roberts, of Philadelphia, and Dr. Miles F. Porter, of Fort Wayne, be elected to honorary membership in this Society.

All of which is respectfully submitted by the Council.

(Signed) W. T. Dodge,
Chairman of the Council.

Moved by Councillor Biddle, supported by Councillor Seeley, that the above report of the Council to the House of Delegates be approved.

Carried.

Moved by Councillor Biddle, supported by Councillor McMullen, that the Secretary-Editor be authorized to enter into a contract with the Tradesman Company of Grand Rapids for the publication of The Journal in accordance with their bid.

Carried.

Moved by Dr. Hume, supported by Dr. Biddle, that the Secretary be instructed and authorized to have the records of the Society compiled for permanent record, and that one hundred dollars ($100) be appropriated for the expense of this work.

Carried.

Moved by Councillor Seeley, supported by Councillor Kay, that the Secretary be authorized to secure a suitable seal for the Society.

Carried.

The Treasurer, Dr. Emmett Welsh, presented the following report:

TREASURER'S REPORT.

To The Council of the Michigan State Medical Society:

Gentlemen:—

As your treasurer I beg to submit the following statement of the funds of the Society in my possession on August 31st, 1913:

Chamberlain Hardware Co. Bonds, drawing 5% interest per annum	$2,000.00
Certificate of Deposit, Commercial Savings Bank	2,325.05
Certificate of Deposit Big Rapids Bank	1,000.00
Certificate of Deposit, G. R. Savings Bank	2,030.00
Certificate of Deposit Commercial Savings Bank	25.00
Checking account G. R. Savings Bank	249.69
Total cash funds	$7,629.74
Accounts receivable	793.11
Total Resources	$8,422.85

Upon assuming the office of Treasurer I received funds and assets amounting to $6,031.67.

I am thus able to report an increase of $2,391.13 with $26.00 due the defense fund, making a net increase for the seven months of $2,365.18.

Respectfully submitted,

(Signed) D. Emmett Welsh,
Treasurer.

Upon motion of Councillor Southworth, supported by Councillor Bulson, the Treasurer's Report was accepted and placed on file.

The Council adjourned to reconvene on Sept. 4th, 1913, at 12 M.

(Signed) F. C. Warnshuis,
Secretary.

COUNCIL PROCEEDINGS

SECOND SESSION

The second session of the Council was held in the Masonic Temple at Flint, on Sept. 4th, 1913, at 12 M., with Chairman Dodge presiding, and the following Councillors present: Dodge, Biddle, Bulson, Seeley, Kay, Baker, McMullen, Witter, Hume, DuBois, Rockwell, Southworth, and President Sawyer, Treasurer Welsh and the Secretary.

Councillor DuBois reported that he had had a conference with Ex-Secretary Haughey, and that he had been authorized to withdraw the bill amounting to $540.00 for back rent as presented to the Council by Dr. Haughey. Councillor DuBois moved that a voucher for $120.00 be sent to Dr. Haughey for payment of office rent for the last year.

Supported by Councillor Biddle and carried.

Moved by Councillor Du Bois, supported by Councillor Kay that the Secretary be authorized to pay Ex-Secretary Haughey advertising commission upon unexpired new advertising contracts.

Carried.

Moved by Councillor Du Bois that fifteen dollars ($15.00) be appropriated for each month's office

rent of the present Secretary-Editor, and that the appropriation date from February 1st, 1913.

Supported by Councillor Biddle, and carried.

Councillor Hume moved the adoption of the following resolution:

"Whereas, it has been the policy of this Council to submit to the censoring of advertising matter of the Michigan State Medical Society's Journal by the Committee on Pharmacy and Chemistry of the A. M. A., and

Whereas such limitation at times, seemingly without proper investigation, has caused friction between this Society and the management of the A. M. A.

Therefore, resolved that advertising matter, the admission of which to our State Journal may be criticised or prohibited by said committee of the A. M. A., shall hereafter be referred to the Chairman of the Publication Committee, Chairman of the Council and the Editor for final action and disposition."

Supported by Dr. Baker and carried.

The Council then adjourned to reconvene on Friday, Sept. 5th, 1913, at noon.

F. C. Warnshuis, Secretary.

COUNCIL PROCEEDINGS

THIRD SESSION

The third session of the Council was held in the Masonic Temple at Flint on Friday, Sept. 5th, 1913, at 12 M., with Chairman Dodge presiding and the following Councillors present: Dodge, Bulson, Seeley, Kay, Witter. Baker, Hume, McMullen, Southworth and the Secretry.

The minutes of the two preceding meetings were approved as read by the Secretary.

Moved by Councillor Biddle, supported by Councillor Witter, that the auditor's bill be allowed, and a voucher drawn for $68.00 in payment thereof.

Carried.

Moved by Councillor Bulson, supported by Councillor Baker, that the Secretary be authorized to employ a corps of reporters for the purpose of securing a complete report of the proceedings of the Society, Council, House of Delegates, General Sessions and the Scientific Sections.

Carried.

Moved by Councillor Baker, supported by Councillor Bulson, that the Secretary-Editor discontinue forwarding reprints of the papers presented in the Section on Ophthalmology and Oto-Laryngology. That these papers be compiled, and a copy of this compilation be forwarded each registered member of the section.

Carried.

Moved by Councillor Bulson, supported by Councillor Baker, that Councillor Dodge be elected as Chairman of the Council for the coming year.

Carried.

Moved by Councillor Seeley, supported by Councillor Witter, that Councillor Bulson be elected as Vice-Chairman.

Carried.

There being no further business the Council adjourned.

F. C. Warnshuis, Secretary.

Minutes of Meeting of House of Delegates Michigan State Medical Society

The House of Delegates was called to order in the Masonic Temple Building, Flint, at 8 A.M., Sept. 4th, 1913, with President Sawyer presiding, and thirty-three (33) delegates responding to the roll call.

Dr. A. I. Noble, Chairman of the Committee on Credentials, reported that his Committee had received no protests as to the seating of the Delegates, and that his Committee recommended that the Delegates whose names were printed in the official program be seated.

Supported by several and carried.

On motion of Dr. Hirschman, supported by Dr. Wilson, the reading of the minutes of the last meeting were omitted.

The report of the Council as read by Chairman Dodge was referred to the Business Committee.

The reports of the following standing committees were all referred to the Business Committee.

REPORTS OF COMMITTEES

Report of the Committee on Control of Specialties

The Committee on the Study and Control of the Specialties of the Michigan State Medical Society begs to report as follows:

With the formation of the American College of Surgeons the first practical step in the direction of the study and control of the specialties has been made

It is too early to make any definite suggestions at the present time, because a number of factors must be considered. Among these appear to be important:

1. The extent of the teaching of the various branches of medicine in the undergraduate schools.
2. The opportunities furnished by post-graduate schools and hospitals.
3. The co-operation of the state medical boards in this connection.
4. The standard of qualification which is to be established.
5. The authority to grant a special license.

Emil Amberg, Chairman.
Frederick W. Robbin.
C. B. Burr.

Report of the Committee to Encourage the Systematic Examination of Eyes and Ears of School Children

To the President and Members of the House of Delegates of the Michigan State Medical Society:

The committee appointed to encourage the systematic examination of eyes and ears of schoolchildren throughout the state has the honor to make the following report:

During the past year there has been decided progress in the work in some parts of the state, while little or nothing has been done in other parts. The public schools in most of the large cities, as well as many private and parochial schools, are carrying out the examinations more or less thoroughly. In the smaller cities the work is progressing more slowly. Each year, however, the school authorities and teachers are appreciating more and more the importance of the work, and the opposition on the part of the parents of the scholars is growing less and less.

Because of lack of funds it has been impossible to canvass the state thoroughly. But now that the society is to allow each committee funds to carry on its work properly we shall be able to make a more detailed report at the next meeting.

Respectfully submitted,

Walter R. Parker, Chairman.
Chas. H. Baker.
Wilfred Haughey.

Report of the Delegates of the Michigan State Medical Society to the Annual Meeting of the American Medical Association

Your delegates beg leave to submit the following report:

Every delegate answered roll call in every session of the House of Delegates and partook in the deliberations of that body. Three out of the four delegates being unfamiliar with the work of the House of Delegates, these three set to work early trying to inform themselves as best they could regarding the duties of their office, and also to make the largest possible acquaintance among the members of the House.

Michigan's delegates voted solidly in favor of the resolution which debarred a doctor from membership in the American Medical Association if he practiced the secret splitting of fees. It was also gratifying in discussing this question, for the Michigan delegates to be able to say that our state already has gone farther than this and enacted a state law which provides for the revoking of the license for this practice, and claiming that our state has the first honors in this movement for a cleaner practice of medicine. This announcement was met with hearty applause. Only one other state, Wisconsin, was able to report similar legislation.

At the last meeting of the House of Delegates of the Michigan State Medical Society the delegates were instructed to work for the election of Dr. V. C. Vaughan as president of the American Medical Association. The delegates are glad to report that Dr. Victor C. Vaughan, Sr., was duly elected president of the national body.

While many factors entered into the result of this election, such as the support of former students of Dr. Vaughan now living in other states, and the wide popularity of the candidate among the profession at large, we cannot refrain from bringing to the surface the effect derived from the many favorable acquaintances of our own genial secretary and the applause-producing address of our Upper Peninsula delegate in his nominating speech.

Dr. Vaughan had as competitors four men ranking among the strongest in America, but was elected by a handsome majority.

The state delegates wish to report that the House of Delegates of the American Medical Association is politically so clean that any attempt at unfairness or stealth was promptly crushed, no matter how prominent were the promoters. Both the retiring president, Dr. Jacobi, and the present incumbent, Dr. Witherspoon, had no consideration whatever for anything not absolutely straight and clean. The reference committees did magnificnt work and invariably were upheld in their decisions by the unanimous decisions of the House.

We wish here to most emphatically state that the American Medical Association is managed by the representatives from the various states and is not dominated over by any few individuals, and that any measure or individual with merit or worth can gain recognition.

The delegates feel that they have been honored by their state in being sent to take seats in this body of the American Medical Association, and that even many valuable papers were willingly missed in order to attend to the legislative affairs of our national organization.

E. T. Abrams,
C. E. Boys,
L. J. Hirschman.
F. C. Warnshuis,

Report of the Committee on Public Health Education

Our special appeal through The Journal and by direct communication with each county society to keep in touch with grange societies, churches, federated clubs and schools has been instrumental in concerted action for better understanding of hygienic laws by the people. The demands for public speakers on health and for health literature has materially increased during the last year. In the larger cities of this state, such as Detroit, Grand Rapids, Kalamazoo, Lansing, Jackson, Muskegon, Manistee, Saginaw, etc., much has been done with existing societies for the betterment of its citizens by concentrated effort in direct lines, as in the milk question; each city publishing its plan of action has caused other cities to strive for the best. The medical inspection of schools has been carried on in some form in each of the cities mentioned, and trained nurses have worked with the schools; if not directed primarily by the Board of Health they have accepted dictation from the board, even though directly financed and governed by the community. The churches throughout the state have not only responded to Governor Ferris' request for a Public Health Day, February 9, but the legislature has put on our statute books the most sanitary laws this state has ever known. Every woman's club throughout the state has observed special days nearly every month on some division of the health work; have kept the subject of pure water and pure milk constantly before the people, and have aroused concerted action in regard to clean, healthy meat for human consumption. The effort for proper protection of other foods from flies and dust and other possible contamination has been universal, and no county of the state has been so isolated that the physicians have not met with the request for talks on health subjects before churches, women's clubs, granges and for popular lectures. The physicians have ably responded in person or directed the securing of specialists on subjects desired.

As a case in point, a local physician of my home town was requested to give a talk on eugenics before the Noon Bible class of a prominent church. Dr. Frank Lydston of Chicago was recommended instead of the local physician Result: Church filled to its utmost capacity with an audience of it least 1,200 thoughtful men and women.

This is but one instance, for every church has called on physicians, both local and specialists, to instruct the people. Mothers' and fathers' clubs have been organized at all schools with phenomenal attendance. Some of the most original reports have come from communities where medical societies held meetings perhaps but quarterly.

The A. M. A. Public Health Committee has introduced the competitive plan of better babies by suggesting that each physician have his families keep score cards of children from birth, and a competitive examination of all children of the community, at least twice a year, be held, that defects of all children might be noticed and corrected in early childhood.

In a bulletin issued by Julia C. Lathrop, chief of the Federal Children's Bureau, in the nature of a report of what American cities are doing and can do to prevent infant mortality and high death rate under 5 years of age, it is shown that the efforts of health officials in the last ten years have resulted in reducing the general death rate of cities below that of rural districts and villages. This bulletin, with its plan for successful baby saving, should be in the hands of every physician, who shoulld enlighten the community as it needs.

The work of investigation being done by Miss

McKinley, under the direction of the State Board of Health, is greatly commended, and the community which is so fortunate as to secure her reports will have new incentive to accurate work.

The Health Car which is to travel about the state, directed by the State Board of Health, will bring many new ideas to the people which can be emphasized for their benefit. The people are fully alive to the subject of health and need the guiding hand of the medical profession. It is not necessary to count the number of an audience, for it is usually the capacity of the audience room.

We desire to call the attention of members of the State Medical Society to the general plan of public health organized at the meeting of the A. M. A. and unanimously passed by the House of Delegates June 10, 1909, and to further development of that work June, 1911, when the following resolution was passed by the A. M. A. Council:

"Whereas, The work of the Public Health Committee is of great service to the community in lessening disease, and stands for the work in which the American Medical Association is interested, and the Council on Health and Public Instruction reasoned that the state and county medical societies co-operate with the Committee on Public Health of the American Medical Association, and make the state chairman of the American Medical Association committee a member of the county public health committee in those counties and states where such committees exist."

In November, 1912, the resolution was sent by Dr. Frederick Green, secretary of the Council, to the secretary of each state medical society, and also published in the Michigan State Medical Journal, asking their co-operation.

We have hoped by this plan to reach every section of our state and organize definitely outlined work, and co-ordinate the work of individuals and the state to systematize the work of the county societies. By this concerted combination we receive the benefit of the experience of similar committees in other states, and through the same channel will share its own success; each committee will be able to stimulate interest when needed and reach even the remotest corners of the state. (See *Jour. A. M. A.*, June 21, p. 2008.)

1. Whereas, we suggest that books on sanitation and hygiene be placed within the reach of all by means of rest rooms and traveling libraries.

2. That speakers be secured for series of talks in each community, and especially that instruction be given our foreign population on feeding and care of infants.

The report of Julia C. Lathrop, chief of the Federal Children's Bureau, should be a text for each county society. The bulletin describes a successful campaign of Care of the Infant, Inspection of Milk Supply, Necessity for Visiting Nurses in Communities, Prenatal Care of Expectant Mothers, Pure Water Supply, Cleanly Protection of Food, especially examination of animals slaughtered for food.

It is necessary that in every community the physician be in close touch with all public health movements and direct them in a scientific and sanitary manner with existing working forces for the benefit of all the people.

Frances A. Rutherford, M.D.,
Chairman.
Clara M. Davis, M.D., Secretary.
Jeanne Solis, M.D.
Blanche Epler, M.D.
Annie Odell.

Report of the Committee on Fee-Splitting

Owing to unforeseen circumstances a report of the Committee on Fee-Splitting was not submitted at the last meeting of the State Medical Society.

Since that time the supremacy of righteousness has become manifest both inside and outside of the medical profession, helping to make that form of graft called fee-spliting odious and illegal. This and the educational campaign against the evil which has been waged, has assisted in curtailing the work and making brief the report of your committee.

Within the past year definite action, which especially concerns us, has been taken by the American Medical Association and the Michigan State Legislature.

The American Medical Association for years in one section of the "Principles of Medical Ethics" has condemned the giving or receiving of commissions.

At the last session of that association at Minneapolis a prohibitive resolution was passed, making the forfeiture of membership a penalty on those found guilty of fee-splitting.

The Michigan State Legislature at its last session, made this and allied forms of graft offenses. Senate Bill 489 has the following pertinent wording. (Section 3, Subsection 6.)

"The board of registration of medicine may refuse to issue or continue a certificate of registration or license . . . to any person guilty of grossly unprofessional and dishonest conduct. These words, 'unprofessional and dishonest conduct,' as used in this act, are hereby declared to mean . . . employing or being employed by any capper, solicitor or drummer, for the purpose of securing patients . . . or the division of fees in a consultation or a reference of a patient to a specialist, when no actual professional service is rendered by the physician referring the case, without the knowledge of the patient or the person concerned in the payment thereof."

To your committee it seems fitting that the Michigan State Medical Society should forthwith put the stamp of disapproval and condemnation also on this form of division of fees which has brought shame on the splendid body of medical men in our state.

We, therefore, offer the following resolutions for adoption:

Resolved, That any member of the Michigan State Medical Society found guilty of secret fee-splitting or of giving or receiving commissions shall cease to be a member of the Michigan State Medical Society.

That there may be a full understanding as to the breach of ethics and illegality—not to mention moral turpitude—involved in fee-splitting, your committee recommends:

That the secretary of the State Medical Society be directed to call the attention of the secretaries of the county societies of the state by circular (1) to the state law governing fee-splitting, (2) to the recent action taken by the American Medical Association touching this subject, and (3) to any action which the Michigan State Medical Society may take on the resolution offered by your committee; the circular to be accompanied by a request that it be presented at one of the meetings of the society to whose secretary the circular is sent.

The committee also recommends that the secretary of the state society be instructed to send printed forms to the secretaries of each county on which the members of the county societies may voluntarily pledge themselves to neither give nor receive secret commissions in the future touching their professional services in any form, irrespective of existing laws.

A further recommendation is made by the committee that in case the resolution offered be adopted, publicity of the action of the state society be given in the newspapers of the state by its secretary, that the public may know that the form of graft covered by

the resolution does violence to the sense of justice and right which is held by men who have been drawn to a profession which looks for the most unselfish service to the sick and afflicted, and who abhor any scheme for commercializing the sufferings and ills of humanity.

Lastly, your committee assumes that the medical schools of the state have instructed, or will instruct their student body as to the evils of fee-splitting, in connection with other principles of ethics, that wrong, not ignorantly, but right, intelligently, may be done when they enter the ranks of the medical profession.

C B. Stockwell.
J. G R. Manning.
G. C. Graves.

Report of the Committee on Legislation and Public Policy

Your committee begs to report as follows:

The amendments to Section 3 involve the *qualification* and *discipline* clauses of the act. Minimum standards of preliminary and medical education were established, the former involving, as a minimum, the credential of a diploma from a recognized high school, or an equivalent secondary institution, and the latter involving, as a minimum, a four-year course of at least eight months in each separate year, in a recognized medical college.

In the schedule of medical subjects for examination, diagosis was substituted for practice of medicine, and materia medica and therapeutics are eliminated, but authority is given the board to add such subjects as it deems necessary from time to time.

The wording of the qualification clause emphasizes the fact that qualification for license is not a *group* proposition, but rather as *individual one*. The reciprocity clause of this section has been simplified, the term "reciprocity" being substituted by "endorsement"—a better term, from the fact that reciprocity conveys the idea that a *group* proposition is involved, or that a state entering into a reciprocal agreement with another state must accept its whole licentiate product, regardless of quality. The so-called reciprocity clause also provides that the board may accept a qualified licentiate from another state, even if such state does not reciprocate the action of the board, provided the licentiate in question fulfils the Michigan requirements at the date of his medical diploma and license.

A subdivision of Section 3 provides for the registration of the various cults and treatment specialists not authorized by law in this state who desire to practice a system or treatment of human ailments or diseases, and who do not in such treatment use drugs or medicines, internally or externally, or who do not practice surgery or midwifery under the provision of the medical act. It requires a chiropractor, a mechanotherapist, a neuropath, and cults of like nature, to be subject to the board's regulations covering moral and ethical character, discipline and registration with county clerks; and, in addition, it requires them to possess a diploma from a recognized high school, and also provides that they shall pass an examination before the board on the subjects of anatomy, histology and embryology, physiology, chemistry, bacteriology, pathology, hygiene and public health, of a grade equal to that required of practitioners of medicine. It is further provided that a practitioner, under the law, shall not be permitted to use in any form the title of "doctor" or "professor," or any of their abbreviations, or any other sign or appellation to his or her name, which would in any way designate him or her as a physician or surgeon qualified under the provisions of the act as a medical practitioner. All persons granted certificates of registration under the above provisions must also conform to all the provisions of the medical act, except the qualifying clause as applied to physicians.

The following exemption amendment has also been adopted:

"Provided, that all practitioners described in Section 3, Part 3, who have been granted a diploma by a college incorporated for the purpose of teaching their method of treatment, and who file with the State Board of Registration in Medicine, prior to Oct. 1, 1913, an affidavit stating that they have practiced in the State of Michigan for a period of two years prior to Sept. 1, 1913, shall be registered and authorized to practice without examination, under the provisions of Section 3, Part 3, of this act. A fee of five dollars ($5.00) must accompany each application for registration under this provision."

The discipline clause of the act has been added to and strengthened by providing for the cancellation of the certificates of those medical men who have professional connection with any person, firm or corporation who advertises contrary to the provisions of the act, or who is guilty of a division of fees in a consultation or a reference of a patient to a specialist, when no actual professional service is rendered by the physician referring the case, without the knowledge of the patient or the person concerned in the payment thereof, or of those physicians prescribing or giving away any substance or compound containing alcohol or drug for other than legal and legitmate therapeutic purposes.

Section 7, or the penalty clause, has been amended by adding to "any person who shall practice medicine or surgery in this state" the following: "or who shall advertise in any form or hold himself or herself out to the public as being able to treat, cure or alleviate human ailments or diseases, and who is not the lawful possessor of a certificate of registration," etc.

Section 8 was amended by the necessary exemption to osteopaths and optometrists, whose present acts exempt them, and to chiropodists who confine their practice to chiropody and who do not use the title of "doctor" or "professor," or any of their abbreviations, or any other prefix or affix in a medical sense to their names, and to persons who confine their ministrations to the sick or afflicted to prayer and without the use of material remedies.

Section 9 covers the definition of the term "practice of medicine," as follows:

"The term 'practice of medicine' shall mean the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve, any human disease, ailment, defect, or complaint whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever."

This definition is sufficiently broad, not only to include all forms of cult practice in vogue at the present time, but all possible cult propositions in the future.

The osteopaths and optometrists amended their respective acts in the last legislature, but as these amendments covered simply advanced requiremnts for registration, opposition to their bills was not thought either necessary or practicable.

In securing the above legislation your committee desires to record its appreciation of the services rendered by a few of those more directly connected with the successful passage of the amendments, viz: Governor Woodbridge N. Ferris, for his helpful, though always fair and impartial attitude toward medical legislation; the health committees and several other members of the House and Senate; Dr.

W. H. Sawyer, president; Dr. W. T Dodge, chairman of the Council, and Dr. Bret Nottingham, chairman of the Legislative Committee of the State Board of Registration, together with other members of that committee.

Edward T. Abrams, Chairman.
Guy L. Kiefer.
A. M. Hume.

August 9, 1913.

Reports of Committee on Tuberculosis

All students of tuberculosis agree that two of the most important factors in the reduction of the death rate are the segregation of advanced cases and the diagnosis of early cases. A difference of opinion exists as to which of these two factors is the more important.

Some of our most competent observers believe that patients in the early stages who are up and about, perhaps attending to their daily duties in a factory or store, are more dangerous to a community than far advanced cases which are largely compelled to remain at home.

But all agree that the diagnosis of early cases is a most important matter, on which the entire tuberculosis campaign rests for its solution.

The institutional care of cases, the segregation of advanced ones, trained physicians and nurses, dispensary treatment, support of the family while the bread-winner is undergoing treatment, and all the important measures of the antituberculosis campaign presuppose the diagnosis of cases in the early stage of the disease. The more thoroughly this is done the more effective will be the entire campaign and the sooner will we get rid of the scourge.

When we consider the economical loss to a community from failure to diagnose early cases, that every third death during the working period of life is caused by pulmonary tuberculosis, and that every other workman who becomes incapacitated owes it to this disease, the importance of an early diagnosis is realized.

Incipient tuberculosis as a clinical entity is the product of recent years, and a large proportion of physicians, especially of the older practitioners, received no instruction in its diagnosis during their student days. Even at the present time thorough teaching of the modern methods of diagnosing these cases is still much neglected in the medical schools. The result is that a large proportion of physicians at the present time are not diagnosing incipient tuberculosis.

Even a great number of moderately advanced cases pass through the hands of several physicians before a diagnosis is made in spite of the fact that most of them are daily expectorating large numbers of tubercle bacilli and that free examinations of sputum are made not only by our State Boards of Health, but also by the boards of health of a considerable number of cities and towns of the state, without charge. Even without an examination of sputum a diagnosis of the large majority of these cases is not difficult and any physician who will take the necessary care and time will seldom fail to arrive at a correct conclusion.

How often, however, are such examinations made without even removing the clothing from the chest of the patient!

The diagnosis of incipient tuberculosis is a more difficult matter, and mistakes are often made by even the most experenced diagnosticians, in private practice as well as in special dispensaries. The patient, however, should always be given the benefit of any doubt that may exist and be treated as tuberculous until time shows that such is not the case. It is far better to treat a hundred patients for tuberculosis, every one of whom is probably in such a state of health as to be benefited by the treatment than to overlook the true condition of one patient until the possibility of recovery is gone.

No harm has ever resulted from sending a patient to a sanatorium with a mistaken diagnosis.

In view of such facts your committee feels justified in calling to the attention of this society the fact that only a beginning has been made in the campaign for stamping out tuberculosis, and that the medical profession must more deeply realize the great energy and intelligenc it must display in the recognition of the early signs of this disease. As a rule physicians do not attach enough importance to the early symptoms. Too often diagnoses are delayed until definite physical signs appear in the lungs or tubercle bacilli are found in the sputum.

The most important factor in decreasing the death rate from tuberculosis is expressed in two words—*early diagnosis*. But this will not be brought about until physicians learn that diagnosis must be made before the open stage is reached.

The reporting of cases is most necessary, but all cases must be diagnosed before they can be reported.

We must learn to consider loss of weight, of strength, or a pulse of 90, an afternoon temperature, blood-spitting, pleurisy or a cough, as always being possible and very often positive symptoms of active tuberculosis. And if the symptoms are persistent and progressive, and no other cause can be found for them, the patient should at once be treated as tuberculous.

A positive tuberculin reaction does not necessarily indicate active disease, but it does indicate an infection and warns the individual to take special precautions against the development of active disease.

The existence of tuberculosis is frequently denied because *negative* bacterial findings are reported. Even in advanced cases however, tubercle bacilli are often not found. One examination of a patient is often not enough. In fact, it may take several examinations and a considerable period of time to arrive at a correct conclusion. A careful consideration of the clinical history and careful examination of the chest are most important in making a diagnosis.

A most important measure for the relief of a large class of advanced cases of disease, and which is more effective than any other, is that of the production of artificial pneumothorax. From reports of a large number of cases treated by various men in the last two or three years it would seem that many cases previously considered hopeless have been greatly benefited and the disease frequently arrested by the injection of nitrogen into the plural cavity. The treatment is of advantage not only in advanced cases of tuberculosis, but in abscess of the lung, bronchiectasis, severe hemoptysis that does not respond to other forms of treatment, and in cases of pleural effusion, after the removal of the exudate, for the purpose of preventing adhesions.

Coincident with an infection of the body with tubercle bacilli there develops a resistance called immunity. Immunity does not indicate what we formerly thought, an impossibilty for the organism to become infected, but constitutes a resistance to the development of disease. The aim of all treatment of tuberculosis is to increase this resistance, and the artificial immunization of animals and human beings against tuberculosis has long been one of the most interesting problems in the study of the disease. Animal experimentation shows that artificial immunization is possible, and when tuberculin was first discovered by Koch it was supposed to be the long-looked-for agent with which tuberculosis could be cured.

Koch's tuberculin is a preparation made from dead

bacilli. But Baldwin in discussing the subject recently stated that one fact has been definitely proved and that is the superiority of living bacilli over all preparations of dead bacilli for protective inoculation. Webb and William have produced immunity in animals by gradually increasing the number of living bacilli, and Theobald Smith states that the use of living bacilli is the most certain way of increasing the output of anibodies.

Knowing on what principles his treatment was probably based, the medical profession had some grounds for optimism in regard to the treatment proposed by Friedmann before the Berlin Medical Society last year. But the methods of the man were such as to excite immediate distrust and the results have justified their suspicion, for Friedmann has utterly failed to substantiate his claims either in this country or abroad, and his work is now discredited wherever it has been investigated.

The finishing stroke was administered by the New York City Board of Health, which closed up the Friedmann Institute by adopting a resolution on May 29 providing for the official supervision of immunization with livng bacteria, and stated that "the use of living bacterial organisms in the inoculation of human beings for the prevention or treatment of disease shall be and is hereby prohibited in New York City until after full and complete data regarding the method of use, including a specimen of the culture and other agents employed therewith, and a full account of the details of preparation and dosage and administration, shall have been submitted to the Board of Health, and until permission shall be granted by the board for the use of the same.

"The injection or treatment of human beings within the city of New York with the F. F. Friedmann treatment is hereby prohibited."

Approximately 130 cases were treated by Friedmann at Bellevue, Mt. Sinai and Seton hospitals and the Montefiore Home, and a letter to a member of your committee from one of the physicians in charge of these cases, but who did not wish to be quoted, states: "For your own personal information I will be glad to say that my impression is that there is absolutely no value in the Friedmann treatment, and that in pulmonary cases it is possible it may do harm. The reports in regard to the benefit in joint and bone cases were premature and are not supported by subsequent results."

The results of the 161 cases treated by Friedmann in Canada were equally disappointing, and resolutions adopted by a committee of five from the Canadian Association for the Prevention of Tuberculosis states that the cure or progress towards cure claimed by Friedmann for his treatment has neither constantly nor even frequently taken place; that the committee finds the results disappointing, and that the claims made for his remedy have not been proved, and that nothing has been found to justify any confidence in the remedy. And yet a physician of Grand Rapids, who is a member of this society, is informing patients who consult him that Friedmann has already been in the city for the treatment of patients and will return again shortly for the same purpose. A member of your committee knows of at least one advanced case, whose days on earth are numbered, who was urgently advised to return and take the treatment.

Friedmann sailed for Berlin on the Kaiser Wilhelm der Grosse the latter part of June, and it is not likely that he will be seen again in this country. "If one-half of the stories which I have heard," writes Dr. Knopf, "of his mercenary methods are true, it would be enough to condemn him forever and make him a disgrace to our profession."

It is quite possible, however, that the method of Friedmann of injecting living avirulent bacilli without setting up any severe reaction may be a step in advance in the treatment of tuberculosis.

A careful survey of the knowledge we already possess points to the fact that tuberculosis can be controlled by the processes of artificial immunization, and it is probable that before many years some patient investigator "without money and without price" will give to the world a simple method of treating tuberculosis which will effect a cure in all but its latest stages

Collins H. Johnston, Chairman.

The following nominations were made for the membership of the Nominating Committee: Drs. Williams, Brook, Ricker, Haughey, Marshall, Inch, Stewart, Hornbogen, Davey, and Walker.

Dr. Hirschman moved, supported by several, that the five members receiving the largest number of votes on the first ballot compose the personnel of the Nominating Committee.

Carried.

Upon ballot, Drs. Walker, Hornbogen, Brook, Ricker, and Davey, having received the largest number of votes, were declared elected members of the Nominating Committee.

The following amendment to our By-Laws was introduced and referred to the Business Committee:

Chapter IX, Section 10:

Strike out the word "June," and insert in its stead "April"; the sentence to read: "Members in arrears after April 1 shall not be entitled to defense for any suit, the cause of action of which arose while in arrears, and any member sued or threatened before the society, or before the organization of the Medico-Legal Fund, must pay the actual cost of defense in such suit."

By-Laws—Chapter XI, Section 1:

Add to the section: "Such dues and assessments shall be remitted to the secretary of the State Society on or before April 1 of each year."

The President appointed the following Business Committee: Drs. Hirschman, Danforth, Inch, Williams, and Marshall.

Upon motion the meeting adjourned to reconvene at 8 o'clock, Friday, Sept. 5th.

F. C. Warnshuis,
Secretary.

SECOND SESSION OF HOUSE OF DELEGATES MICHIGAN MEDICAL SOCIETY

The House of Delegates convened in regular session in the Masonic Temple, Flint, Sept. 5th, 1913, at 8 A.M., with President Sawyer presiding, and thirty-six (36) delegates answering to the roll call.

The minutes of the previous session were approved as read by the Secretary.

BUSINESS COMMITTEE

The following report of the Business Committee was read by Chairman Hirschman:

"Your Business Committee had referred to it the reports of the various committees, which were read by title, and are unanimously concurred in. These reports were as follows:

1. Report of the Committee on Legislation and Public Safety.
2. Report of the Committee on Fee-Splitting.
3. Report of the Committee on the Study and Prevention of Tuberculosis.
4. Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of Schoolchildren Throughout the State.

5. Report of the Committee on Medical Education.
6. Report of the Committee on Veneral Prophylaxis.
7. Report of the Delegates to the American Medical Association.
8. Report of the Committee on Specialties.
9. Report of the Committee on Public Health Education.

We also had referred to us the report of the Council, and we desire on behalf of the Society to commend the excellent work of the Council, and the excellent work of the Secretary. The report shows the Society is in a flourishing condition, and the Committee believes that the House should be greatly flattered on having such a report presented to it.

The report of the Council recommended Dr. John B. Roberts of Philadelphia, and Dr. Miles F. Porter, of Fort Wayne, as non-resident honorary members. Your committee recommends that they be elected to honorary membership.

Included in the report of the Council is the report of the accountant who went over the books. Your committee recommends that the report of the auditor be included in the reports, but inasmuch as we have had protests on some of his comments, and as there is a question as to the justice of some of these comments, your committee does not offer any recommendation one way or the other. Because of the shortness of time, and the fact that certain things would have to be investigated, we recommend that the comments of the accountant should not be published with the formal report.

The Business Committee feels that it is very desirable that the books be audited each year, and commend the establishment of a system on the basis on which the work has recently been carried on."

Moved by Dr. Haughey, supported by Dr. Davey, that the report of the Business Committee be accepted and adopted.

Carried.

NOMINATING COMMITTEE

Dr. F. B. Walker presented the following report of the Nominating Committee:

"To the House of Delegates of the Michigan State Medical Society:

Gentlemen:

Your Nominating Committee would respectfully recommend the nomination of

H. E. Randell, Flint, as First VicePresident.

C. E. Taylor, Jackson, as Second Vice-President.

E. H. Webster, Sault Ste. Marie, as Third Vice-President.

R. H. Spencer, Grand Rapids, as Fourth Vice-President.

Delegate to A. M. A. to succeed himself, E. T. Abrams, Dollar Bay; Alternate, A. D. Holmes, Detroit.

Alternate to Secretary, A. W. Hewlett, Ann Arbor.

As members of the Council:

A. E. Bulson, to succeed himself in Second Dist.

A. L. Seeley, to succeed himself in Eighth Dist.

B. H. McMullen to succeed himself in Ninth Dist.

R. S. Buckland, Baraga, to succeed C. J. Annis of the Soo.

To your honorable body we would recommend Lansing as the next place of meeting. All of which is respectfully submitted.

Frank B. Walker, Chairman.
O. L. Ricker,
A. W. Hornbogen,
B. M. Davey,
J. D. Brook."

Moved by Dr. Kiefer, supported by Dr. Brook, that the report of the Nominating Committee be accepted.

Carried.

Moved by Dr. Brook, and supported by Dr. Vaughan. that the Secretary cast a ballot of the House of Delegates for the nominees of the Nominating Committee; for Lansing as the place for holding the next meeting, and for the delegates and alternate delegates to the next session.

The motion was carried, and the Secretary did so cast, whereupon the President declared their election.

Dr. Davey, of Lansing, gave the following notice:

To give Notice:

To amend such articles of the Constitution and By-Laws as are necessary to abolish the Council and establish a Board of Directors to control the intercession of business of the Society, the election of the officers, except President, being returned to the House of Delegates.

Dr. L. J. Hirschman offered the following amendment to the By-Laws:

Chapter III, Section 4:

Insert before the word "No," in line one, the following: "No member shall present more than one paper at any annual meeting."

Under the rules these amendments lie over until the Annual Meeting in 1914, and will be referred to the Business Committee of that meeting for consideration and report.

Delegate Wilson introduced the following resolution:

Resolved, that in order to advance precision in drug therapeutics which is lost by variable preparations, the Michigan State Medical Society requests that manufacturers date all their preparations as is done in the case of vaccines and sera, as to the time of manufacture and the limit of potency, and

Resolved, that in view of the lack of knowledge of the period of drug potency, our delegates to the American Medical Association be instructed to use their influence to have such an investigation conducted by the Council of Pharmacy and Chemistry, and;

Resolved, that we suggest to the various pharmaceutical associations the making of a careful study of drug deteriorations, and;

Resolved, that we ask the individual druggists to keep all potent preparations from exposure to light and access to air.

Upon motion of Dr. Danforth, supported by several, the above resolution was adopted

Dr. Wilson called attention to the Maine Narcotic Law, and moved that a copy of this law be referred to the Committee on Public Health and Education for consideration and report at the 1914 annual meeting.

Supported by several and carried.

Upon motion the meeting adjourned *sine die.*

F. C. Warnshuis, Secretary.

MINUTES OF THE FIRST GENERAL SESSION

The first General Session of the Michigan State Medical Society was called to order in the auditorium of the Masonic Temple, Flint, on Thursday morning, September 4th, 1913, at 10 A.M., by President Walter H. Sawyer.

The audience arose while the Rev. Jones of Flint pronounced the invocation as follows:

Almighty God, Our Father in Heaven, we look to Thee for Thy benediction upon us as we gather today in this convention, thanking Thee for the revelations of Thyself which Thou has made to us in the world, thanking Thee for the powers which have come to us in Thy providence, thanking Thee for the advancement that has been made in science and in learning, thanking Thee that we can think Thy thoughts after Thee. We pray Thy blessing upon this gathering of men as they are here for a few days to consider together the great interest of medical science. We thank Thee for the revelations which Thou hast made, for the advancement which already has been made for the alleviation of suffering and for the prolongation of life and for the blessings that have come to the human race because of the study and advancement in medical science. And we pray, Our Father, as these men shall return to their homes and their practices that there may come some new thought or some new effort or some new consideration or some new knowledge that may make them more efficient in the work to which Thou hast called them and make them acknowledge more and more the spirit of the great Father who came not to be ministered unto, but to minister, and to give his life even a ransom for many. We ask it in His name, Amen.

The President then introduced Mr. C. S. Mott, Mayor of Flint, who delivered this address of welcome on behalf of the City of Flint:

Mr. President, Ladies and Gentlemen: If ever I was sorry that I was not gifted with the easy flow of speech it is this time, because with such an intelligent and representative body of men as is before me now I feel that they should have an address of welcome which is far beyond anything that I could possibly give; but, on behalf of the citizens of Flint, I certainly extend the most hearty and the most cordial welcome to you all and hope that you will all have a most pleasant and enjoyable time here, and that the work will be profitable during your stay in this city. Some one said it was too bad that the town was dry at this time, but I have never known that to be any handicap to a doctor as long as he had a pencil and a piece of paper. (Laughter)

In Flint we are all proud of our city. I think we can be excused for that. We have a good hotel and theater, we have the Oak Grove Sanitarium, M. S. D.; we have good schools; we are well equipped with a post-office and public library; we have this beautiful Masonic Temple; the ground has been broken and work commenced erecting an Elks' Temple: we have a Y. W. C. A.; we have raised over a hundred thousand dollars for a Y. M. C. A.; we have a hospital which I think is a model institution; it does not spread out as much as we would like to see it, but we hope in time it will grow and take in things that it does not cover at the present ime; we have just completed our new pumping station and filtration plant, whereby we hope to give the citizens of this city some first class water, which is a necessity in every city, we have started a campaign here of providng adequate sewerage, also paving.

When Dr. Dixon of the State Board of Health was over here some time ago he mentioned the fact that Flint City was at the top of the list of cities of this state from a health standpoint, the lowest nnmber of deaths I think of any city in this state. I read in the paper the other day that for the past month we stood about third; at the same time he called our attention to some matters that I certainly had never thought of in just that light, (and I do not know whether he has made the same remarks so generally or not that you all have heard them), but they were along this line, that while the health of the citizens of any place is the most important and greatest asset that we have and should be safeguarded and protected in every way possible, still the people generally seem to spend more money in the protection of other things. Now, for example, he called attention to the fact that for every thousand dollars of assessed valuation, in this city the tax is $19; for the protection of property from fire, of that nineteen dollars $1.60 is spent, about one-tenth; for police protection about 80 cents; for health protection, or the allotment for hospital work and all that sort of thing, 19 cents. Now, that is a very small amount, and in view of the importance of the health of the citizens of this country he indicated that we should spend more time and more money in the preservation of this health, and that is a point that I want to bring up here and leave with you. I hope that this society will do everything that it can to agitate these matters as much as possible and bring them before the municipalities for the protecion of health as he mentioned, and certainly here in this city, why, we are looking for the best, and any question of that sort will have our hearty support. (Applause.)

The following address of welcome from the Genesee County Medical Society was delivered by Dr. Noah Bates, President of the Genesee County Society:

Mr. President, and Members of the Michigan State Medical Society, Ladies and Gentlemen: On behalf of Genesee County Medical Society I extend to you a hearty welcome to the City of Flint. Genesee County Medical Society will spare no pains in making it pleasant for you during your stay in the city, and I am sure that this meeting will be a very profitable and instructive one to all of us, and that every physician present will be better prepared afterwards to treat and care for his patients.

I welcome you to a healthy city, where the sanitary conditions are good, brought about by the persistent efforts of the Health Department and the city officials with the cooperation of its citizens. The death rate in the city has recently been as low as six per thousand in some months, and for the past year there has been but a very few communicable and other acute diseases.

Now, if any of you should be so unfortunate as to become ill while you are in the city the ambulance will be ready to take you to one of the best equipped hospitals of this country where you will be nursed and cared for by a corps of nurses that cannot be excelled in training under the instructions of as capable a superintendent as can be procured.

Mr. President, it is a pleasure and a satisfaction to me to state that Genesee County Medical Society is composed of 87 per cent of the active practitioners in the county, with very good prospects of securing the remaining 13 per cent. A fine spirit of harmony characterizes all our meetings and prevails among the members in the practice of their profession.

Once more in behalf of our County Society I welcome to the City of Flint the State Society, its guests and visitors. The name "Flint" sounds very hard and dry, but you will find at least plenty of soft drinks here. (Applause)

President Sawyer responded as follows:

For the State Medical Society and its distinguished guests I assure you of our grateful appreciation of your cordial welcome. It is a pleasure to be with you in your beautiful city. Would that the enterprise for which you are famous could be manifested in every locality and in all causes which make for betterment. We shall know you better, and you what we are doing, and profit by the experience and relationship This gathering will be a helpful and inspiring influence along the lines of our interests and efforts. Your interest and ours are mutual and we are confident of your co-operation in the things we are trying to do. Arrangements for our meeting have been most complete and satisfactory. We have every reason to be glad we came. May the years bring us into closer and closer sympathy in our common purpose.

Dr. H. E. Randall of Flint, Chairman of the Committee on Arrangements, outlined the several plans that had been made for the transaction of the business of this Annual Meeting and for the convenience and entertainment of the members and visiting ladies.

The report of the House of Delegates was made by the Secretary.

The President then called Third Vice-President Dr. Osborne of Lansing to the chair during the deliverance of the President's Annual Address. (This address and discussions that followed will be found on another page of The Journal.)

The President's address was discussed by the following invited guests: Hon. Perry F. Powers of Cadillac; Hon Milo D. Campbell, of Coldwater; Judge Claudius Grant of Detroit; and Prof. Wm. C. Hoad, of Ann Arbor.

Under the head of Miscellaneous Business Dr. Brett Nottingham of Lansing introduced the following resolution and moved its adoption:

RESOLUTION.

"Whereas, Act Number 10 of the Public Acts of the Extra Session of 1912 provides that the Michigan Industrial Accident Board shall have supervision over the charges made by the physicians for the services rendered injured employees in the State, and

Whereas, the Michigan Industrial Accident Board regards as advisable the establishment of a schedule of fees, covering this class of service, and

Whereas, the physicians of the State can with much more fairness and with more probability of

securing the universal adoption of said schedule of fees, establish this standard of charges, than could the board of laymen,

Resolved, that the President of the Michigan State Medical Society appoint a committee of five for the purpose of establishing a schedule of fees for the surgical care of those injured employees who come under the Workingman's Compensation Law, and be it further

Resolved, that this Committee confer with the Industrial Accident Board and various claim adjusters of this State with a view of securing as far as possible a harmonious and equitable adjustment of this matter and report the results of their labors through the columns of THE JOURNAL of the Michigan State Medical Society."

It was supported by Dr. Tibbals of Detroit and Dr. Hume of Owosso, and duly carried.

The President appointed the following committee in accordance with the above resolution:

Brett Nottingham, Lansing, Chairman.
C. H. Hitchcock, Detroit.
C. F. Baker, Bay City.
C. T. Southworth, Monroe.
F. C. Warnshuis, Grand Rapids.

Dr. W. H. Haughey of Battle Creek, moved that a committee of three be appointed to investigate the advisability of the State Society taking some definite steps that will tend towards securing a state official whose duty shall be to prosecute all the violators of the medical practice laws of Michigan.

Supported by Dr. Davey, of Lansing.

Moved by Dr. Wilson of Detroit, and supported by Dr. Vaughan of Detroit, that the matter be referred to the Committee on Public Legislation and Policy.

Carried.

Dr. L. J. Hirschman of Detroit placed the name of Dr. Guy L. Kiefer of Detroit in nomination for President for the ensuing year.

Dr. Hirschman's speech was as follows:

Mr. President: I was one of the great many who were fortunate enough to second your nomination last year, and I have always felt that it was a privilege to do so.

I feel that the standard quality of the Presidential timber of the Michigan State Medical Society must be kept up. I hold in my hand here the program of our meeting this year and I was struck by a number of facts. When I first picked it up I thought for a moment I was in Minneapolis, that I had in my hand the program of the American Medical Association; the similarity of get-up, the similarity in arrangement, the similarity in print was very evident. As we looked at our State Journal during the last few months we have noticed how the Journal of our Society each month is more and more becoming a *facsimile* in appearance of the Journal of the American Medical Association. Our Society has been reorganized so that it is a miniature of the American Medical Association; we have our House of Delegates to transact our business; we have our Council; we have our various sections, and so on. The American Medical Association's example is a mighty good one to follow. The American Medical Association, in the van of the fight for sanitation, hygienic living and the public health this year, through a little impetus given by your delegates who were instructed to do so, have placed at the head of that association one of the greatest teachers of sanitation and public health in the world. (Applause). The members of the Michigan State Medical Society felt an honor and pride in the honor which was tendered our state when Victor C. Vaughan, Sr., was elected President of the American Medical Association.

Gentlemen, Michigan has shown the way this morning, at this meeting that has been the biggest meeting in the history of our Society. We have had a magnificent address by our president and a most magnificent discussion of it by these various gentlemen on the splendid subject, the brand new subject, which we are striving to carry out, the importance of "sanitary science," better living, teaching people how to get better, and to live better and to eliminate disease, and what is more, we should take the hints these gentlemen gave us this morning in their beautiful addresses. Every man who got up this morning, from Dr. Sawyer to the last one, made a most magnificent nominating speech for the leader of sanitary science and public health in our state; a man who combines some of the sanitary science of Prof. Hoad, combines some of the scientific attainments of our president, combines some of the eloquence of our friend, Mr. Campbell, who also combines some of the wit of our friend, Mr. Powers, and last, but not least, one who has some of the fight of Judge Grant. This gentleman, whose name I scarcely need mention, has been honored by our University by having the degree conferred upon him, the first degree of Doctor of Public Health. He has been honored by his confreres in the profession by being elected Chairman of the Section of Hygiene in the American Medical Association. It now remains for Michigan to complete the good work that has been done in the past and now being carried on, the good work of our present president by placing in charge for the next year that leader of sanitation, who has devoted to it twelve years of his life at financial sacrifice, who has "swatted the fly," muzzled the dog, has saved the babies, and has given the tuberculous hope, Dr. Guy L. Kiefer, of Detroit. (Applause)

Upon motion of Dr. Baker, supported by several, the nominations were declared closed.

President Sawyer announced that the bouquet of flowers upon the speaker's table had been placed in memory of Dr. Wilson of Flint.

Dr. C. B. Burr moved that the members arise and bow in respect to the memory of Dr. Wilson and that the Secretary be instructed to fittingly inform his family of the action taken by the Society. This was done.

President Sawyer announced that he had received a message from Gov. Woodbridge N. Ferris informing him that he would be delayed in arriving in Flint until one o'clock, and that the Council had decided to call a Special General Session for two o'clock that afternoon for the purpose of listening to the Governor's address.

The meeting then adjourned to reconvene at two o'clock.

In pursuance with the morning announcement the members reconvened in the auditorium of the Masonic Temple at two o'clock and listened to the address of Gov. Woodbridge N. Ferris. (The Governor's address will be found elsewhere in this issue.)

The meeting then adjourned to reconvene at 11:30 Friday, Sept 5th, 1913.

(Signed) F. C. WARNSHUIS,
Secretary.

SECOND GENERAL SESSION.

The second General Session of the Michigan State Medical Society was called to order in the auditorium of the Masonic Temple at Flint on Friday morning, September 5th, 1913, at 11:30, by President Walter H. Sawyer.

The minutes of the previous day's session were read by the Secretary.

The report from the House of Delegates was read by the Secretary.

Moved by Dr. Vaughan, supported by several, that the report be accepted and filed.

Carried.

Dr. Freund of Detroit, called the attention of the members to the work that had been done on the part of the *Detroit Saturday Night*, and the *Detroit Times* in their endeavor to expose the fraudulent advertisements, and moved that the members convey to the publishers of these papers our unanimous endorsement of their attitude, and to assure them of our moral support in the work that they have undertaken.

Supported by Dr. Rockwell of Kalamazoo, and caried by unanimous vote.

A letter of invitation to visit the plant of the Flint Varnish Company was read by the Secretary.

The announcement of the Committee on Nominations of the result of the ballot for president was read by Chairman Walker as follows:

"We beg to announce that 365 votes were cast for Dr. Guy L. Kiefer of Detroit for President." The chair declared Dr. Kiefer elected President for the ensuing year.

The Chair appointed Drs. Welsh and Stockwell to escort the president-elect to the chair, who made the following brief remarks:

"In thanking you for the honor that you have just conferred upon me, I want to assure you that I realize that considerable work and responsibility goes with the office. I am fully in sympathy with the spirit of progress that has made itself so manifest in all the meetings of the Society at this time, and I am particularly interested in the many good suggestions that were given out by the retiring President in his complete and very suggestive address of yesterday. I want to assure you that I will do all in my power to carry out those suggestions, and keep the Society on the level to which it has been brought, and further the interests of the Michigan State Medical Society in every way at all times that I am able to do. I thank you again for the honor conferred upon me."

Dr. Kiefer then assumed the chair.

Dr. Hirschman, of Detroit, moved that the thanks of the Michigan State Medical Society be extended first to our very efficient, courteous, and capable retiring President, for the capable way he has taken care of the Society during the past year, and the way in which he has presided over the sessions.

Also to extend thanks to the Secretary-Editor for the brilliant way in which he has filled his office; also to the profession and people and press of Flint, and the directors of the Oak Grove Hospital, for the many courtesies and kindnesses extented to us, and for the perfection of detail which has been so excellent by the committee in the handling of the present meeting of the Michigan State Medical Society, and if I have omitted to thank anybody who ought to be thanked, I wish to thank them also. This motion was carried by a rising vote.

On motion duly made and seconded the meeting then adjourned *sine die*.

(Signed) F. C. Warnshuis,
Secretary.

Entertainment

The President's Reception

The fete champetre given the first night on the grounds of Oak Grove hospital by the directorate of the institution in honor of President W. H. Sawyer of the Michigan State Medical Society was a brilliant success. One thousand persons, of whom 500 were physicians and their wives, attended the reception and dancing party.

Never in the history of the Michigan State Medical Society has there been a social function of such magnitude or one that even approached it for uniqueness of conception and elaborate detail of execution. The directors of the famed institution did themselves proud and the function is the subject of many compliments by the visitors today.

Fully half of the 70 acres of beautiful wooded Oak Grove were illuminated by Japanese lanterns and vari-colored electric lights. From the main entrance at Crapo and Second streets to the rear of the wooded vale at the southeastern extremity of the institution practically every tree and shrub was dotted with lights. The walks and driveway leading from the entrance to the hospital group were transformed into picturesque avenues.

In the Receiving Line

Directly in front of the administration building a large shrub was studded with red, white and blue electric lights and the trunk of a stately tree was wound with the same decoration. By the side of this illumination the receiving line was formed. Those in the receiving line were: Dr. and Mrs. Burr and Miss Ernestine Burr, Dr. and Mrs. E. A. Christian of Pontiac, Dr. and Mrs. W. H. Sawyer of Hillsdale, Dr. and Mrs. Noah Bates, Dr. Victor C. Vaughan of Ann Arbor, Miss Dorothy Dort, Dr Wadsworth Warren of Detroit, Dr. H. E. Randall, Mr. and Mrs. C. M. Begole, Walter O. Smith and Dr. and Mrs. H. R. Niles. Several hundred persons were presented to Dr. Sawyer, the guest of honor, who is also vice-president of Oak Grove corporation, between the hours of 8 and 9:30 o'clock.

From the receiving line the guests were conducted to the refreshment tables where attendants of the hospital presided. Nearby a cigar stand was located.

All about the refreshment tables chairs were provided. There were also seats arranged along the edge of the cliff which overlooks the beautiful valley where a dancing pavilion had been arranged. The arrangement of the decoration along the cliff and of the descent into the valley was superb. A line of lanterns bordered the edge of the elevation and the shrub-covered hillside was dotted with scores of lights. Those who did not wish to dance were able to sit on the cliff and listen to the music and view the dancers. The winding stone steps leading to the valley were brilliantly lighted by lanterns suspended from bushes on either side.

The specially constructed dancing floor providing room for about 25 couples was crowded all during the evening. Wolcott's orchestra furnished the music for the long program. Punch was served at a table near the dancing pavilion.

There is no question but that the fete will be a lasting remembrance with the visitors.

In addition to the above entertainment features the members of the Flint profession were in constant evidence and placed cars at the members' disposal for rides about the city. At the hotels there could always be found one or more of the Flint doctors actively engaged in preventing any ennui on the part of a visiting member. The Flint doctors proved themselves to be royal entertainers and their solicitation for the comfort and pleasure of the members have caused those who attended this meeting to return home deeply grateful for the many courtesies extended to them.

The ladies were royally entertained at the Country Club and on Friday they enjoyed an automobile ride.

Many of the members accepted the invitation to visit the plant of the Buick Motor Co. Thursday afternoon. All in all the hospitality that was exhibited caused the members to rejoice that Flint had been selected as the city in which the 1913 meeting was to be held.

Scientific Section Meetings.

The labor that was performed by the officers of the various sections resulted in the arrangement of sectional programs of high standard and of extreme interest. The various papers that were read elicited a large attendance at all the section meetings and evoked active and pointed discussions. At no time was there any evidence of waning interest. As these papers will be published in succeeding issues of The Journal it is not deemed necessary to further comment upon them at this time. If the standard that was established at this meeting is maintained the 1914 meeting in Lansing will draw

a large attendance, for no member can well afford to forego attendance upon these section meetings. The action of the Council in directing that the Secretary-Editor shall secure a corps of reporters to record the discussions will enable THE JOURNAL to publish and thus place before each member a copy of what is said in the discussions, will be received with approval by all our members.

MEMBERS REGISTERED IN THE 48TH ANNUAL MEETING. TOTAL NUMBER 365

ALPENA COUNTY:—C. M Williams—1.

BARPY COUNTY:—F. M. Shilling—1.

BAY COUNTY:—C. H. Baker, H. A. Bradley, R. W. Brown, J. C. Grosjean, E. A. White, H. B. Morse, F. E. Ruggles, P. R. Urmston—8.

CALHOUN COUNTY:—W. A. Carling, J. T. Case, B. N. Colver, J. C. Hafford, J. J. Hales, W. Haughey, W. H. Haughey, R. F. Kingsley, W. A. Mortensen, J. L. Ramsdell, R. C. Stone—11.

CHARLEVOIX COUNTY:—A. M. Wilkinson—1.

CHIPPEWA COUNTY:—J. J. Lyon—1.

CLINTON COUNTY:—A. R. Coon, A. O. Hart, F. E. Luton, G. E. Taylor—4.

DELTA COUNTY:—M. P. Fenelon—1.

EATON COUNTY:—A. H. Burleson, W. E. Newark, C. S. Sachett, W. H. Rand, F. W. Sassaman—5.

EMMET COUNTY:—J. J. Raycraft, F. C. Witter—2.

GENESEE COUNTY:—S. H. Bahlman, Dr. Bailey, N. Bates, D. C. Bell, J. C. Benson, W. G. Bird, G. D. Briggs, B. E. Burnell, C. B. Burr, F. H. Callow, C. D. Chippell, A. B. Clark, C. P. Clark, M. W. Cleft, B. Cogshall, T. S. Conover, H. Cook, T. L. Covert, V. H. deSomoskeoy, E. G. Dimond, J. W. Evers, J. M. Galbraith, G. R. Goering, B. Goodfellow, J. Gould, H. W. Graham, R. S. Halligan, J. H. Handy, J. Houston, J. H. Houton, R. G. James, M. B. Keing, M. C. Kelly, D. D. Knapp, H. D. Knapp, M. S. Knapp, L. J. Locy, J. G. R. Manwarring, B. G. McGarry, J. C. McGregor, O. W. McKenna, F. B. Miner, R. S. Moorish, A. R. Niles, C. H. O'Niel, J. W. Parker, A. A. Patterson, H. E. Randall, F. E. Reeden, W. C. Reid, A. J. Reynolds, E. D. Rice, E. V. Ricker, G. W. Bobb, T. H. Roberts, E. C. Rumer, J. F. Rumer, A. Stevens Rundell, J. Schiedler, R. D. Scott, J. B. Shank, M. B. Smith, H. A. Stewart, J. D Stuart, W. H. Taylor, F. L. Tupper, W I. Whitaker, P. E. White, W. H. Winchester, A. S. Wheelock—70.

GOGEBIC COUNTY:—W. E. Tew—1.

GRAND TRAVERSE COUNTY:—S. L. Chase, G. McKevitt—2

GRATIOT COUNTY:—W. M. Drake, E. H. Foust, E. M. Highfield, J. R. Shaffer—4.

HILLSDALE COUNTY:—B. F. Green, W. H. Sawyer—2.

HOUGHTON COUNTY:—R. S. Buckland, A. I. Lawbaugh—2.

HURON COUNTY:—W. T. Morrison, A. E. Yale, S. B. Young—3.

INGHAM COUNTY:—H. S. Bartholomew, E. I. Carr, B. M. Davey, C. M. Davis, R. L. Dixon, F. J. Drolett, F. H. Harris, M. L. Holm, B. Nottingham, S. Osborn, A. E. Owen, C. V. Russell, L. W. Toles—13.

IONIA COUNTY:—H. B. Knapp, F. M. Marsh, A. E. Penton, J. F. Pinkham—4.

JACKSON COUNTY:—A. E. Bulson, W. L. Finton, W. H. Lake, C. D. Munro, E. C. Taylor, G. E. Winter—6.

KALAMAZOO COUNTY:—F. E. Barret, C. E. Boys, M. Chase, A. W. Crane, B. Epler, A. E. Foster, C. B. Fulkerson, J. W. Hawkey, G. F. Inch, C. H. McKain, A. I. Noble, A. H. Rockwell, B. A. Shepard, R. J. Walker, W. B. Wallace, R. E. Weeks—16.

KENT COUNTY:—J. D. Brook, A. M. Campbell, E. W. Dales, W. J. DuBois, J. E. Ferguson, R. J. Hutchinson, S. L. Rozema, F. A. Rutherford, R. R. Smith, R. H. Spencer, W. G. Young, F. C. Warnshuis, D. E. Welsh—13.

LAPEER COUNTY:—Wm. Blake, J. H. Douglass, W. P. Eggleston, H. A. Haynes, G. W. Jones, W. J. Kay, M. B. McCausland, N. D. McVicor, D. J. O'Brien, A. Price, R. Stewart, J. O. Thomas, L. A. Traphagen—13.

LENAWEE COUNTY:—I. L. Spalding—1.

LIVINGSTON COUNTY:—R. H. Baird, J. M. Brigham, B. H. Glenn, H. G. Huntington, E. B. Pierce—5.

MACOMB COUNTY:—J. M. Croman, E. G. Folson, V. H. Wolfson—3.

MARQUETTE COUNTY:—A. W. Hornbogen—1.

MECOSTA COUNTY:—J. B. Campbell, W. T. Dodge, G. S. Griswold, C. F. Karshner—4.

MIDLAND COUNTY:—E. J. Dougher—1.

MONROE COUNTY:—E. W. Kelly, C. T. Southworth, A. E. Unger—3.

MONTCALM COUNTY:—A. S. Barr, F. R. Blanchard, H. L. Bower, M. E. Danforth, F. L. Fralick, F. A. Johnson, A. E. Savage—7.

MUSKEGON COUNTY:—J. T. Cramer, F. B. Marshall—2.

OAKLAND COUNTY:—E. A. Christian, L. A. Franham, C. P. Felshan, M. W. Gray, R. LeBaron, G. W. Mankimmin, T. E. McDonald, H. F. Reed, H. A. Sibley, M. B. Sharp, M. J. Uloth—11.

O. M. C. O. R. O. COUNTIES:—H. N. Knapp, A. C. MacKinnon—2.

OTTAWA COUNTY:—N. H. Kassabian, H. G. Poppen, W. G. Winter—3.

SAGINAW COUNTY:—A. L. Bailey, B. H. Beckwith, J. A. Bruce, D. B. Connell, B. F. C. Crane, E. E. Curtis, W. A. DeFoe, W. Dibble, W. L. Dickinson, W. F. English, F. B. Florentine, L. H. Ferguson, A. Grigg, E. M. Hunsberger, J. N. Kemp, A. E. Leetch, J. C. McCormick, R. McGregor, A. R. McKinney, J. A. McLandress, J. L. Passmore, J. H. Powers, E. P. W. Richter, B. B. Rowe, R. S. Watson, P. S. Windham—26.

ST. CLAIR COUNTY:—J. L. Chester, T. E. DeGurse, W. B. James, C. B. Stockwell, A. E. Thompson, W. J. Wall—6.

ST. JOSEPH COUNTY:—D. M. Kane—1.

SANILAC COUNTY:—J. W. Scott, G. Simenton, W. W. Wiers—3.

SHIAWASSEE COUNTY:—H. L. Arnold, J. J. Haviland, H. A. Hume, A. M. Hume, D. H. Lamb, R. C. Mahaney, C. McCormick, T. F. Mullen, J. A. Rowley, G. P. Sackrider, V. C. Van Liew, W. E. Ward, G. B. Warle—13.

TRI-COUNTY:—B. H. McMullen, O. L. Ricker—2.

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SURGICAL SUGGESTIONS.

The employment of narcosis in a case of "stiff and painful shoulder" may reveal a cause not otherwise ascertainable, *e. g.*, subluxation.

—*American Journal of Surgery.*

Vein-to-vein transfusion possesses over the artery-to-vein operation at least the advantage of sparing the donor a conspicuous scar and the loss of a large artery. With a tourniquet lightly applied to his arm the venous pressure may be made abundant, and the blood flow correspondingly rapid.

—*American Journal of Surgery.*

The long-used term "congenital hernia," for that variety in which the testicle lies in the sac, is misleading insofar as it suggests that all the other varieties are not congenital. Many types of inguinal hernia are congenital, perhaps all are.

—*American Journal of Surgery.*

In lumbar kidney operations take pains to protect the ilio-hypogastric nerve. Its division causes paralysis of a considerable area of the abdominal wall and produces a distressing pseudo-hernia. If the nerve is divided in the operation suture it.

—*American Journal of Surgery.*

Tetanus Antitoxin.—A study of statistics leaves no room for doubt that tetanic antitoxin is well worth while as a curative agent in developed cases. In its use as a prophylactic agent, it must always be kept in mind that tetanus antitoxin does not remain long in the body. Vaillard states that the protective influence in man, lasts but one to two weeks. In those cases in which the complete removal of the infectious bacilli cannot be assured, a repitition of the injection is necessary. Cases of tetanus developing some weeks after a prophylactic use of antitoxin are occasionally observed, and are undoubtedly due to the neglect of this precaution (Jour. A. M. A., Aug. 30, 1913, p 687.)

Diabetic Foods.—From an exhaustive examination of diabetic foods, made in the Connecticut Agricultural Experiment Station, Street and Mendel conclude that the following conditions should apply to such a product: 1. It should contain much less carbohydrate than is found in a normal food of the same class—certainly not overhalf as much. 2. The label should bear a correct statement of the percentages of protein, fat and carbohydrates present. 3. The amount of the different carbohydrates present should be declared on the label, that is, starch, sucrose, levulose, lactose, etc. 4. The processes of manufacture should be so standardized that uniformity of composition, within reasonable limits, will be maintained from year to year. 5. No statement should be placed on the label which would give the impression that any food in unlimited quantity is suitable for a diabetic patient. 6. In the advertisements of these foods emphasis should be put on the carbohydrate content rather than on the amount of protein present (Jour. A. M. A., Aug. 30, 1913, p. 687)

Small epigastric herniae, easily overlooked, are often the cause of pains in this region simulating those of stomach ulcer, gall-stones, etc. Some of these, however, consist only of properitoneal fat without any sac. The treatment of these latter by operation will not always relieve the pains for which a deeper source must, indeed, be sought.

—*American Journal of Surgery.*

To encourage the drainage of pus from the pelvis through an abdominal wound it is helpful to have the patient lie face downward at intervals, preferably with the foot of the bed elevated—but not until two or three days after the operation.

—*American Journal of Surgery.*

The kidney and upper portion of the ureter may be easily reached by the lumbar route without dividing any muscle fibers. Beginning just below the twelfth rib two or two and a half inches from the spine an incision is made downward and more or less outward to or towards the iliac crest, exposing the lumbar aponeurosis. Divide this in the same line, proximal to the origin of the latissimus dorsi. This will expose the border of the erector spinae, which may be drawn inward, the lumbar fascia and the ilio-hypogastric nerve coursing obliquely on the latter. Divide this fascia just above and external to the nerve, i.e., downward and outward, the incision being easily made to split the sheath of the quadratus lumborum. (It is desirable to bare this muscle in nephropexy.) The perirenal fat is now seen beneath, and the reflection of the peritoneum anteriorly. The appendix can be removed or the gall-bladder palpated through an opening in the peritoneum here. Through this exposure the upper ureter can be reached, or a kidney of fairly normal size delivered. It is not to be recommended for the removal of a large kidney. In closing the wound only two fibrous layers are to be sutured—the lumbar fascia (which is the posterior aponeurosis of the transversalis) and the lumbar aponeurosis.

—*American Journal of Surgery.*

The Making of Antitoxin.

Scrupulous care in the preparation of diphtheria antitoxin cannot be too highly commended. The welfare of the diphtheritic patient demands a serum from which every element of conjecture is eliminated. The antitoxin should have its origin in the blood of horses that are known to be healthy, and its manufacture should never be entrusted to the inexperienced or to those who are hampered by lack of facilities. Reference to the antitoxin laboratories of Parke, Davis & Co. may be pertinent in this connection. The writer had the pleasure of inspecting them not so very long ago. The visit was in the nature of a revelation. Parke, Davis & Co. maintain a large stock farm, equipped with model stables, twenty miles or so from Detroit, hundreds of feet above the river level and far from the city's smoke and dust; and here, under the care of expert veterinarians, are kept the horses used in serum production. The laboratories in which the antitoxin is prepared, tested and made ready for the market are the admiration of scientific men who visit them.

The JOURNAL
of the
Michigan State Medical Society
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Subscription Price—$2.00 per year, in advance.

OCTOBER

Editorials

THE EXAMINATION OF THE INSANE

I am requested to furnish in an editorial of six hundred to one thousand words some useful hints to the general practitioner on the examination of the insane. In attempting to comply with this request, I lay no claim to originality but offer an outline taken from the one in general use in our state hospitals.

This editorial must presuppose that the reader is fairly well grounded in the principles of psychiatry such as published in the modern text-books that are based on Kraeplin's classification of insanity, or some modification of it.

Some definite plan in recording mental symptoms is essential. The one in use in the state hospitals of Michigan is adapted largely from Diefendorf's Clinical Psychiatry, and takes up the anomalies of the various mental faculties, i. e.:

(a) Of perception
(b) Of mental elaboration
(c) Of the emotions
(d) Of volition.

These may be manifested in disturbances of speech, of consciousness and orientation, in illusions, hallucinations (of hearing, vision, smell, taste), disturbances in memory (remote and recent), in association of ideas, in judgment (delusion formation), in the emotional state, and in the will power.

With such a definite plan in mind, the examination should proceed with:

1. The history of the patient's family, which should include a record of the habits, mode of life, cause of death, etc., of the parents, grand-parents, uncles, aunts, cousins, brothers, sisters, and children of the patient in order to determine as to the presence of any hereditary factors.

II. A history of the patient, taking into consideration:

(1) The condition of the mother during gestation;

(2) Character and results of the labor;

(3) Development in childhood, including history of:

(a) severe injuries, eruptive fevers and their sequellae, nocturnal incontinence, chorea convulsions of any sort.

(b) mental development, attitude toward study; grade attained, precocity and dullness.

(c) age and condition at puberty.

(4) Normal life, habits and environment of the patient; history of exhausting diseases.

(5) Previous psychoses, their number, age at occurrence, duration, degree of recovery or improvement.

IV. History of the present psychosis:

(1) Date and character of the onset, sudden or gradual.

(2) Description of symptoms in chronological sequence.

V. Examination of the patient.

(1) Physical and neurological examination, which should precede the mental examination, because the patient is more easily approached this way and his suspicions dispelled. Moreover, much information may be obtained in this examination which will suggest methods of procedure in the following:

(2) Examination of mental condition.

By this time much suggestive information will have been obtained. For instance, the presence of organic mental disease is chiefly determined by the neurological examination. Many important symptoms are also recognized by the general appearance of the patient. Thus; an elated expression, more or less constant motion, fantastic dress, singing, rhyming,

etc., suggest at once the manic phase of manic depressive insanity, while the reverse of these symptoms suggests the depressive phase of the same psychosis. Stereotyped movements suggest *dementia praecox*.

Taking up the outline previously suggested:

Speech defect may generally be detected in ordinary conversation. In addition it is generally advisable to use some test words as electricity, truly rural, fifth riding artillery brigade—the scanning speech of the paretic, the verbigeration or mutism of the *dementia praecox,* and the paraphasia of arterial sclerosis are easily recognized.

Disturbances of consciousness (clouding, delirium, etc.) are easily recognized, and are found prominently in the various deliria and infective psychoses.

Hallucinations are often detected by the reaction of the patient. He stuffs his ears with cotton, talks to himself, plugs his nose, or spits out his food. Generally, they may be elicited by direct questions, but occasionally a great deal of tact and persistence is required in getting at the facts. It is important to distinguish between actual hallucinations and other kinds of impressions. These patients will claim that God talks to them, but on closer questions will state He communicates in some other way. Hallucinations persist in *dementia praecox* and general paralysis, in the paranoid states and arterial sclerotic insanities, and are less persistent in alcoholic and manic depressive insanities and the involution psychoses.

Memory disturbances are determined by the productions of the patient and by direct questioning touching on events in his past life and of recent occurrence. We find the difficult retention of new impressions in senile cases; the patchy memory (in which the memory becomes occasionally and temporarily clear) of the arterial scleriotic, the lapse of memory in the alcoholic polyneuritis, etc.

In disturbance of idea association we recognize the rapid ideation, rhyming, sound association and so-called flight of ideas in the maniac. The retardation in the depressed, the limited range, mental dullness, looseness of thought connection, desultoriness, circumstantiality of the *dementia praecox*. In the productive patient little difficulty will be experienced in this part of the examination. In the quiet, the content of the thought may be elicited, for instance, by giving him a detailed account of some recent experience or by giving him some word, such as blue, chair, horse, asking him to tell the first ideas suggested by the words. Examining the letters of the patient will often disclose important information not easily gotten by direct questioning. In fact, in examining inaccessible patients the written productions, particularly letters of a personal character, will often furnish valuable suggestions for examination in any field.

Under Judgment we look for evidence of delusions. Usually many will have been expressed before the examination has gone this far. Sometimes direct questions will bring them out, such as: Are you insane? Who do your friends think you are? Have you any enemies? etc.

In a few instances evidence of delusions is arrived at only through a circuitous process, as by engaging in general conversation so skillfully directed as to lead to events that the patient is personally interested in. It is well to classify the delusions into:

(1) Expansive—persistent in many cases of paralytic dementia; transient in manic states.

(2) Depressive, which may be subdivided into:

(a) Those of self-accusation, found abundantly in the involution depressive states.

(b) Of persecution, including delusions of jealousy, of influence, etc., found in alcoholics and persistently in paranoid forms of *dementia praecox,* paranoid conditions.

(c) Nihilistic ideas, common and involution psychoses.

(3) Systematized delusions found in paranoia and which are persistent.

In the Emotional Field we look for evidence of

(1) Diminished effect (loss of affection, dulling of finer sensibilities) common to *dementia praecox* and general paralysis.

(2) Increased emotional excitability, variation in moods, irritability, apprehensiveness, various fears or phobias, euphoria, disturbances of the lower emotions such as hunger, fatigue, sexual feelings. The above conditions are not very difficult of detection and require no special suggestions, except that observation rather than questioning is essential.

Anomalies of the will are generally recognized in the physical and neurological examinations and by personal observations and a report of the observation of others.

Impulsive and compulsive movements, *Cerea flexibilitas* (lead pipe resistance), mannerisms, negativism, *Echopraxia*, and *Echolalia* are found in the various forms of *dementia praecox*.

Motor excitement, pressure of motion and activity are common symptoms in manic depressive insanity—the manic phase. Psycho-

motor retardation, lack of initiative, in the depressive phase of the same psychosis.

The above is but the merest outline of symptoms to look for with suggestions as to how to elicit them, together with a few hints to assist in proper classificaton.

The practitioner need not be discouraged if in a single examination he fails to find sufficient symptoms for the certification of insanity. Some cases remain under observation for days in hospitals for the insane, before sufficient symptoms are discovered to warrant a positive diagnosis.

In other words, difficulties in examination are not limited to those who see but few cases. They also beset those of long experience.

HERMAN OSTRANDER, M. D.

YOUR DUTY TO THE PUBLIC.

The relationship of the science of medicine to public welfare must not be overlooked in our present era when great teachers, clinicians and laboratory men are so strenuously engaged in their endeavor to unfold the fundamental laws and truths that govern disease and health. All honor to these busy workers who are so zealously employed in this meritorious and admirable task. As the results and proven investigations are being placed at our disposal, it is not at all sufficient that we should simply apply their findings in our daily work. There remains for every practitioner a certain duty to perform and it is our bounden duty to faithfully execute this task conferred upon us and to impart to the public at large that portion of our newly acquired knowledge as is necessary and essential for the public to possess in order that they may derive the full benefits that are only attainable by means of a rational understanding of these new principles and demonstrated proven findings.

In the field of medicine there are, as someone has said, three important branches. The first is research work; second, the training of physicians to put these new findings into practice; third, the education of the public so that they may recognize the difference between medical science and medical charlatanry. The research workers are busily engaged and honestly reveal to us the ultimate and reliable results of their work. During the recent decade, organized medicine has aroused itself and through its committee on medical education, of our national organization, has accomplished much and is busily engaged in raising the standards of our medical schools so that they to-day are graduating men of high attainments and efficiency, in possession of a working knowledge of the results as well as the application of these laboratory findings and are thus capable of applying the newer tenents of modern medicine. The education of the public at large has been, as a rule, sadly neglected, and it is but in recent years that we have awakened to this fact. The pioneers in this branch of our work are just commencing to detect the ripple in the placid surface of our existence that portends that in the near future our combined energy and might will soon be exerted in a universal movement that will impart to our lay public that knowledge which has been so long withheld from them.

"When *educated* physicians confess their ignorance and helplessness and the *uneducated* physicians proclaim their knowledge and infallibility, it then takes some education on the part of the public to realize that the humility of true knowledge is superior to the arrogance of pretense." As we are becoming more and more able to demonstrate the now known truths of our science and to likewise exhibit supportative evidence of our assertions, there remains for each of us to demonstrate to the people of our individual vicinity and clientele the part that it is incumbent for them to perform in order that they, knowing the tenents of preventative medicine, may apply them in their homes and lives.

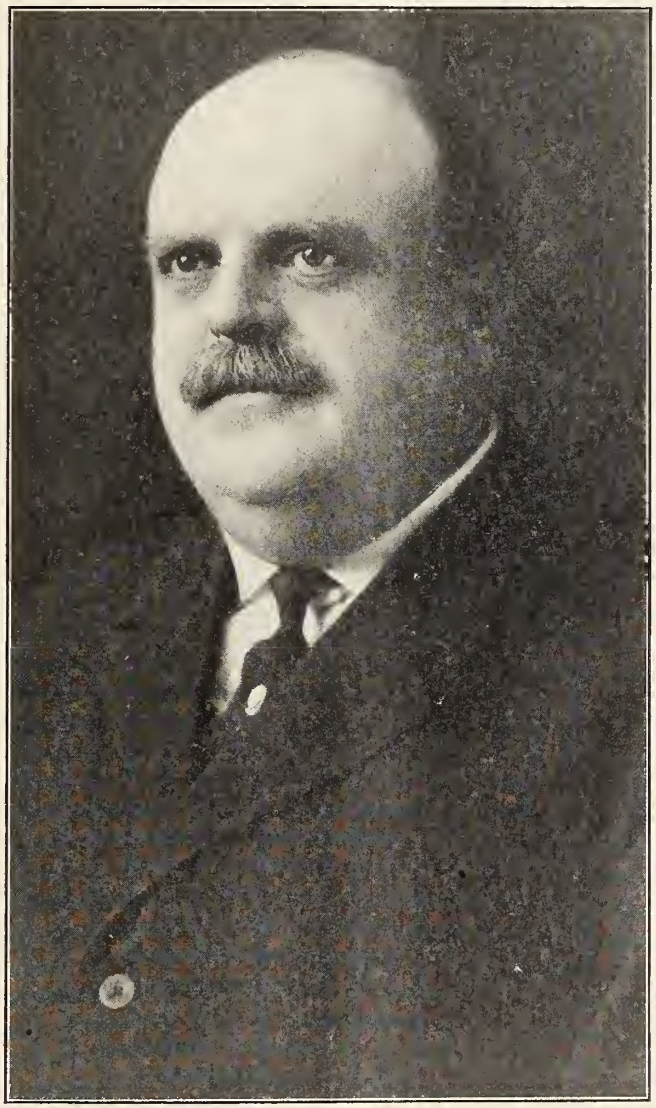
In the proposed movement that will seek to secure the enactment of necessary legislation, so as to legalize and cause to be instituted the fundamental principles that will impart this knowledge for the education of the public, we realize that opposition will be met. This opposition will, as it always has, come from faddists, patent medicine satellites, and misguided medical "Freedomites," and with them charlatans and commercial doctors. They will, without a doubt, unite in a mighty protest and publicly accuse us, as in the past, of selfish interests. With systematization and the exhibition of our organization's co-operative strength, we should be enabled—by the knowledge and statistics that we possess—to refute this opposition, and cause the public and legislative bodies to perceive the truth and in the end acquire their endorsement and assistance in our work for the betterment of the health and the prolongation of the lives of the people of our state. It but remains for us to be aggressive.

THE FORTY-EIGHTH ANNUAL MEETING.

The Forty-eighth Annual Meeting of the Michigan State Medical Society may well be designated as one of the most successful meetings in the history of our organization. Successful from the standpoint of attendance—the registration was 365—the scientific program

and the interest manifested therein, the work of the House of Delegates, the entertainment features and the inspiration produced by the Governor's Address and the representative men who discussed the President's Annual Address. A noticeable spirit of harmony prevailed and the spirit of sincerity and dignity that attended the various meetings cannot help but impress the public at large with the fact that our organization does not exist for merely selfish preservation or the conservation of personal motives. The public is beginning to realize that the object of our Society is to make better doctors and through our organization resources to advance the health and social interests of the people of Michigan. Our sincerity in this purpose was demonstrated at the Flint meeting. A complete report of the transactions of the 48th Annual Meeting will be found upon another page of this issue.

In the July number of The Journal we recognized in these columns the services that had been rendered by Dr. Guy L. Kiefer to the people of Detroit and also to the state during his long term as Health Officer of the City of Detroit. Our members further recognized Dr. Kiefer's labors for, and his interest in the problems of public health by unanimously electing him president of the Michigan State Medical Society for the ensuing year. We are assured that under Dr. Kiefer's administration the every interests of our organization will be well guarded. Under his direction we know that he will cause our influence to be mani-



GUY LINCOLN KIEFER, M.D.

fested in developing those measures that will tend towards advancing the interests not only of our members, but also the inhabitants of our state in so far as they pertain to health, sanitary surroundings, and social welfare. At the close of his term as president we anticipate that we will be enabled to record various lines of activities that have been carried to a successful termination under his direction and through his endeavors.

The thanks and appreciation of our members are due to the section officers for having prepared such an excellent and interesting program and for their efforts in securing the presence of such an array of invited guests. To them belongs much of the credit for the success of the meeting and we assure them that their labors have been greatly appreciated.

Lansing was selected as the place for the holding of the 1914 meeting. By reason of its central location and easy access the 1914 meeting should be the largest in our history. The profession of Lansing have given their assurance that their every effort will be directed to that end.

To those who for one reason or another failed to attend, we but ask that you carefully read the transactions, President Sawyer's Address and the discussions that followed it and the Governor's Address. After so doing we feel inclined to believe that you will resolve to not neglect to attend our future meetings. You have sustained a loss hard to recompense through your failure to attend the Flint meeting.

Satisfied though we may be in our retrospection of the work of the Michigan State Medical Society the time is not yet at hand when we may be permitted or content to retard our throttle and relax our efforts. There is still much to be accomplished and the future should witness the making of a determined effort to attain still higher and greater ends. We urge an aggressive as well as a progressive attitude on the part of every member. You owe it to yourself, your society and to your state.

A NEW DEPARTMENT

The Publication Committee is very pleased to announce to our members and readers that commencing with the November issue we shall from month to month publish the proceedings of The Clinical Society of the University of Michigan. That organization has designated THE JOURNAL as its official organ of publication.

The Clinical Society of the University is composed of the members of the faculty and of the members of the staff of the University Medical Department and Hospital. It holds semi-monthly meetings. The papers that are presented before their gatherings have long been recognized as being of high scientific as well as practical value. The guests who address the members are men of national reputation. The Clinical Case reports are of studied cases in the hospital.

One will readily perceive that the material thus obtained for publication in THE JOURNAL will add to the value and merit of our JOURNAL and this new department will be consistent with the policy of the Publication Committee in endeavoring to send our readers a journal that is of greater value and merit.

The Publication Committee hopes to be able in the near future to announce other innovations which will raise the standard and value of THE JOURNAL to a still higher plane.

Editorial Comments

"Your day and your competitor's day have just the same number of hours. But neither are long enough to swipe a second from for knocking purposes." Every "knock" that you utter will react at some time or another, and while you may be deceived in thinking that you have gained a point or issue, eventually it will be revealed unto you that you have failed —you have not acted the part of a man. So forget the "hammer act."

With the resumption of the regular meetings of your County Society you are urged to resolve to attend, if in any way possible, every meeting that is held this fall and winter. In addition make it a point to participate in the program by reading one or two papers, the reporting of some of your interesting cases and by engaging in the discussions that take place. Such co-operation on your part will result in causing your society to hold a series of very profitable and instructive meetings. The value and benefits that you derive from your membership is dependent upon the way in which you participate in the programs of your local society. The exhibition of interest and active work on the part of every member cannot result in anything but a strong, active and live county society. The interest shown and the personal work done by the members determines the rating of your society into the good, fair, or poor class. Your personal pride should be all sufficient to impel you to contribute your share of the labor requisite to secure the highest rating for your county organization.

The editor is at all times pleased to receive honest criticisms and suggestions pertaining to

the subject matter contained in the Journal. In order that we may be better enabled to each month send you a more valuable and instructive publication, we are requesting you to present us with your suggestions. By knowing your needs we shall be better able to supply them.

As a member of the State Society do you realize that this is your Journal? Do you also realize that it has grown to be a "topnotcher" among State Medical Journals? While the ends attained occasion a certain amount of satisfaction the Publication Committee is not yet content to relinquish its efforts towards securing a still greater prestige and reputation. The Committee is desirous of being able to send you each month a Journal containing from twelve to fifteen abundantly illustrated original articles. To attain this end requires more funds. No, we do not want any money from you—But we are going to ask you to in the future patronize our advertisers whose announcements appear in our advertising pages. When you order, order from them and let them know that you were influenced to do so by reason of their advertisement in your Journal. This co-operation will retain their patronage and in addition will attract other advertisers and in the end the revenue derived from this increased advertising income will enable us to increase the size and value of our Journal. Tell the salesman that calls upon you that if he is desirous of securing your order it will be necessary for him to induce his firm to advertise in your Journal. If you are not sufficiently interested to lend us this assistance—which costs you nothing—then you must not expect your Committee to be able to raise the standard of your publication.

The first number of the new publication, *"The Modern Hospital,"* has reached our desk and after a careful perusal we have only admiration and commendation to express to its editors. Its contents, style and makeup foretell that this publication is one that is bound to exert an untold amount of good in bettering hospital conditions and administration. Its object, as stated in the salutatory editorial is: "An agent that will be a vehicle of expression to bring into a wider field of usefulness the experience and learning of each individual, to the end that this experience may become the common harvest of all."

When one stops to consider that in the United States there are 6,665 institutions of record for the care of the sick, with a total capacity of 600,000 beds; that there are connected with these institutions 100,000 trustees, 65,000 physicians, and that 10,000,000 people contribute annually to hospital funds; we must then concede that the want exists and that the field is ripe for untold good to be accomplished by such a publication as "The Modern Hospital."

The publishers may feel assured of a hearty welcome and we bespeak for them in Michigan a kindly reception and support from all who are in any way connected with a hospital.

The editorial staff is composed of the following men: Henry M. Hurd, Baltimore; F. A. Washburn, Boston; W. H. Smith, Baltimore; S. S. Goldwater, New York; J. G. Munford, New York; W. L. Babcock, Detroit; John A. Hornsby, Chicago. The editorial office is located in the Monroe Building, Chicago, and the business offices in the Metropolitan Building, St. Louis. The subscription price is $3.00 per year.

Mellin's Food was awarded a gold medal at the International Congress held in London.

The Journal is a medium for every member to disseminate among the profession of the state and country the tried and proven experiences and observations that they may make in their professional labors. To this end we invite your contributions in the form of papers, case reports and laboratory experiments. Will you not give preference to your state and official publication when selecting the medium for the publication of your article?

Deaths

Dr. Ransom Newell Murray was born in Henriette Township, Monroe County, New York, on September 18, 1830, of American parents. His parents moved to Michigan when he was but eighteen months old and bought a farm near Ann Arbor. The land was not cleared and they led the life of settlers. Here he grew to manhood, obtaining such education as the common schools of that early day furnished. When he was but a small boy he suffered necrosis of the bone of the right ankle, the result of fever, and from this he suffered all his life.

While a young man yet in his teens, Ransom Murray began the study of medicine with Dr. Lamond of Flint. After some time he went to Ann Arbor and took what they called in those days a "course of lectures." In 1854, Dr. Lamond started him as his partner, giving him Atlas, Genesee County, as his territory, and he visited his patients on horse-back, using the ancient saddle-bags.

Dr. Murray practiced at Atlas until 1857, when he went to Winona, Minnesota, where he practiced and remained about two years, returning in 1859. On February 8, 1859, soon after his return, he was married to Emily O. Cady, of Atlas.

In the fall of 1865 he became a student at Jefferson Medical College in Philadelphia, and graduated from this institution in 1866, receiving a diploma in medicine and surgery. He returned to Atlas and resumed practice there, remaining about one year, going from that place to Grand Blanc

for a few months. In 1868 Dr. Murray sold his practice in Grand Blanc to Dr. Noah Bates, now of Flint, and he returned to Minnesota, locating at Lake City. He remained in Lake City until 1872, at which time he returned to Michigan, locating at Flint, where he practiced until his last illness.

Dr. Murray was appointed consulting physician to the Michigan State School for the Deaf, in 1893, which position he held at the time of his death—twenty years of continuous service.

Dr. Ransom Newell Murray

In April, 1899, Dr. Murray went abroad to attend clinics in London hospitals and study surgery. In the summer of 1904 he spent some time with the Mayo Brothers at Rochester, Minnesota, attending clinics.

Dr. Murray performed one of the first, if not the first surgical operation in Flint. He was very successful in this branch of his practice as well as in medicine.

Dr. Murray is survived by his daughter, Mrs. John S. Hamaker, of Mendon, Michigan. His wife died in November, 1896 and his only son in October, 1883.

Correspondence

Sept. 11, 1913.

Dr. Fredk. C. Warnshuis, Secretary,
91 Monroe Ave., Grand Rapids, Mich.

Dear Dr. Warnshuis:—

I want, through you, to extend my sincere thanks to the Michigan State Medical Society for the honor which they have conferred upon me by making me an honorary member.

We are already getting your Journal through Dr. Weaver, who is a member of our firm, and also Assistant Editor of the Indiana State Journal. We frequently refer to articles in your Journal in our weekly reviews.

Yours very sincerely,
MILES F. PORTER.

Grand Traverse County Medical Society,,

Sept. 18. 1913.

Dr. Frederick C. Warnshuis,
Grand Rapids, Mich.

Dear Doctor:

Enclosed you will find a copy of the resolutions drawn up by the Grand Traverse-Leelanau County Medical Society and presented to Mr. G. G. Bates in recognition of his stand in regard to questionable advertising. Will you please give this space in THE JOURNAL and comment editorially on the same.

Yours very sincerely,
JAMES A. J. HALL, M.D.,
Secretary.

Be it resolved by the Grand Traverse County Medical Society that we are pleased and greatly appreciative of the attitude taken by Mr. G. G. Bates, the Editor of the Record Eagle, of this city, with reference to refusing to accept ads from traveling quacks and questionable medical advertisers. And we wish to say, too, that this act was wholly unsolicited by anyone. We sincerely feel this to be an act commendable to Mr. Bates and one to be emulated by other newspapers. The public should and will feel grateful to Mr. Bates for this attitude as it means much to them and is a financial loss to the paper.

O. E. CHASE, M.D.
E. B. MINOR, M.D.
JAMES A. J. HALL, M.D.
Committee.

State News Notes

Dr. John J. Mersen of Holland has been appointed city physician.

Dr. A. T. LaBarge, of Calumet, has located in Detroit.

Dr. Roy O. Knapp, of Ionia, has resigned as assistant physician at the Ionia State Hospital for the Insane. He has been succeeded by Dr. P. C. Robertson.

Dr. Frederick T. Lau, of Detroit, has received an appointment to the New York City Hospital on Blackwell's Island.

Dr. R. D. Sleight of Battle Creek has returned from Europe where he spent five months in post-graduate work.

Dr. William D. Whitten, physician for the Baltic Mine for the Copper Range Consolidated, has resigned and will continue his practice in Los Angeles, California.

Dr. C. E. Miller of Cadillac has been appointed as library commissioner of that city.

Two changes are announced on the Copper Range Medical Staff by the Chief, Dr. W K. West. Dr. W. R. Hodges will succeed Dr. Whitten of Baltic and Dr. H. D. Cornell of Victoria will succeed Dr. Hodges in the stamp mill towns.

Tripping over a wire stretched across a grass path, Dr. C. B. Thomas of Muskegon fell and dislocated and fractured his right shoulder on Aug. 22nd.

Dr. and Mrs. B. G. McGarry of Fenton are in Chicago where the doctor is pursuing a post-graduate course.

After an absence of four years Dr. E. D. Kremers is visiting relatives in Holland. Dr. Kremers is stationed in Honolulu in the U. S. army medical corps, and holds the rank of first lieutenant His leave of absence expired on September 1st.

Dr. T. C. H Ableman has resigned his position as assistant surgeon at the Michigan Soldier's Home, located in Grand Rapids. The doctor was married during the first week in September and has entered private practice in Wisconsin.

Dr. Culbertson of Vickerysville has entered private practice in northern Oregon.

Dr. W. S. Mackensie has been appointed local surgeon for the Wabash Employees Hospital in Adrian.

The Allegan doctors held a pleasant meeting in the home of Dr. W. H. Bills on August 30th. Dr. F. L. Stegeman read a paper on Pyorrhea. Following the paper and its discussion refreshments were served by the host. Fourteen doctors were in attendance.

Dr. E. F. Harrington of Whitehall has sold his practice to Dr. J. C. Kenning of Grand Rapids. Dr. Harrington has located in Muskegon and will confine his practice to eye, ear, nose and throat diseases.

The Samaritan Hospital of Detroit was formally opened on August 11th.

During the coming year the pupils in the Detroit schools whose teeth require attention will be treated in four newly established dental clinics that are to be conducted under the direction of the Board of Health.

Eighteen manufacturers of Detroit have united and established the Manufacturer's Mutual Hospital for the care and treatment of their injured employees. Quarters have been secured in a building located at 434 Jefferson avenue and which has been remodeled so as to afford suitable accommodation.

Dr. Nels J. Robbins is contemplating the erection of a new hospital in Negaunee. Dr. C. J. Larson will be his associate in conducting the work of the hospital.

Work has commenced for the erection of a new contagious disease hospital in Ann Arbor and for which that city recently appropriated $25,000.

According to the report made by Dr. C. B. Fulkerson, medical officer of the Kalamazoo public schools, over one-third of the children in the Kalamazoo schools have some defect or disease which required the attention of the medical officer The exact figures are 34.4 per cent.

These figures are gathered from the examination which was made of the school children in the first eight grades

Dr. T. D. Gordon of Grand Rapids departed for Germany on Aug. 30 and expects to spend the next six months in post graduate work in Berlin and Vienna.

Dr. V. C. Gilbert of Louisville, Ky. has accepted the appointment as assistant surgeon in the Michigan Soldiers' Home in Grand Rapids. He entered upon his duties on Aug. 15th.

The Wayne County Medical Society resumed its regular meetings after a summer's recess on September 15th. The evening was devoted to listening to the retiring president's—Dr. E .W. Hass—address and to the report of the delegates to the State Medical Society.

The new auditorium of the Wayne County Medical Society is growing rapidly; the excavating is completed and the steel construction is finished. Present indications point to the completion of the building so that it will be occupied before the first of the year. It will have a seating capacity for five hundred.

County Society News

GENESEE COUNTY.

A special meeting of the Genesee County Medical Society was held at Dr. Burnell's residence in Flint, July 14, 1913. The meeting was called to order at 8 p. m. by President Bates. Dr. Wells C. Reid of Grand Blanc was elected to membership.

Dr. George R. Goering of Flint presented a paper on "Streptococcic Infection of the Breast." Dr. Myron W. Clift, of Flint, reported some cases of hemorrhagic neonatorum and gave the recent literature on the subject.

Following this interesting program our host served the attending members delicious refreshments.

On motion, a vote of thanks was given Dr. Burnell for his bounteous hospitality.

C. P. Clark, M. D., Secretary.

SPECIAL MEETING.

A special meeting of the Genesee County Medical Society was held July 12th, at 9 p. m., to arrange to attend the funeral of our honorary member, Dr. R. N. Murray.

A committee on resolutions was appointed, consisting of Drs. Bates, Cogshall, Rumer, Kelly, Wheelock, and Handy.

It was arranged to attend the funeral in a body, July 14th.

RESOLVED, by the Genesee Medical Society, that in the death of Dr. Ransom N. Murray, our oldest member, we have lost a very dear and generous friend. He was always loyal to the medical fraternity, kind to the younger members, and ready to extend help and advice to them. His long and successful practice and unselfish attention to his patients has endeared him in the hearts of his fellow-citizens. He was a student always, and even during the last years of his life kept up his reading, not only on medical subjects, but also on history, astronomy, and literary classics. His companionable nature, genial manner and acute sense of humor made association with him exceedingly delightful. To know him well was but to love him.

To his daughter and relatives, we extend our heartfelt sympathy in their great bereavement. Be it further

RESOLVED, that a copy of these resolutions be placed among the records of this Society, and that a copy be sent to his daughter.

W. G. BIRD,
J. G. R. MANWARING,
F. L. TUPPER,
Committee.
C. P. CLARK, Secretary.

HOUGHTON COUNTY

The regular meeting of the Houghton County Medical Society was held on Monday evening, September 1, 1913, in the Miscowaubik Club and had as its guests the members of the medical staff of the Michigan National Guards who are on strike duty in the Upper Peninsula.

"Medical Service in the Field" was the subject of a paper by Maj. R. C. Apted of Grand Rapids. Major John Frazier of Port Huron described the organization of a field hospital and Capt. Ernest C. Lee related the duties of the ambulance company. Capt. Robert J. Baskerville gave a detailed explanation of the first aid to the injured and demonstrated the outfits that were employed in that service.

The above talks proved to be very interesting to the members and served to enlighten them regarding the manner in which the State seeks to conserve the health and life of her militiamen.

Dr. W. H. Bettys presented a paper entitled "A Review of Eddyism." A Clinical case was presented by Dr. A. F. Fisher.

A. LABINE,, Secretary.

KALAMAZOO ACADEMY

Minutes of the Meeting of Academy of Medicine, August 26, 10:30 a. m. in the Anna M. Blair Library Building, Vicksburg, Mich.

The meeting was called to order by the President, Dr. C. E. Boys, and in the absence of the Secretary, Dr. S. R. Light was elected Secretary pro tem.

The minutes of the meetings of June 24, July 8 and August 12 were read and approved. The applications of Dr. Edward M. Steger and Dr. Margery J. Gilfillan were submitted to the Board of Censors, consisting of Drs. Balch, Rogers, Leland, McKain, Crosby and Rockwell. The Board reported favorably and it was moved by Dr. Swift, and seconded by Dr. Lee, that the report of the Board of Censors be accepted and the applicants declared elected. This motion was carried.

Dr. Boys called the attention of the Academy to the Vicksburg Semi-Weekly Commercial, which contained a full-page advertisement of one W. J. Croziero, M. D., a quack who was registered to practice in Michigan by the State Board in 1910, through reciprocity with Missouri. Dr. Rockwell moved that the Academy instruct the Illegal Practice Committee to request the State Board of Registration in Medicine to revoke the license of Dr. Croziero. This was seconded by Dr. Leland, and an animated discussion, highly favoring this action, followed, and when put to a vote the motion carried.

After this an experience meeting followed, in which each member present reported some interesting case or related some unusual experience which had come to his attention, and a very interesting discussion resulted.

There were present at this meeting, in addition to the members of the Academy, the following physicians from St. Joseph County:

Dr. M. Sabin of Centerville.
Dr. F. A. Pratt, of Centerville.
Dr. W. R. Royer, of Mendon.
Dr. McMichael, of Gary, Ind., was also a guest.

President D. B. Waldo, of the Western State Normal, entered the meeting in the afternoon and gave a very profitable and interesting address.

F. B. FULKERSON, Secy.

GRATIOT COUNTY

The Gratiot County Medical Society met at the Wright House in Alma, August 14, 1913, the meeting being called to order by President Barstow. Twelve members and one visitor were present.

Dr. Kilborn was not present with his paper; Dr. Blanchard was not present but sent his paper on "The Diagnosis and Treatment of Typhoid Fever," which was read by the Secretary. Dr. Blanchard's paper was discussed by Dr. Charles McLachlan of Elwell and several others. Dr. McLachlan stated that he would not consider treating typhoid without baptisia. He used ten drops of specific in four ounces of water and gave a teaspoonful every four hours. In case of hemorrhage he gives large doses of charcoal. Dr. Barstow stated that he depended upon the Diazo reaction in diagnosing typhoid.

Dr. C. B. Gardner of Alma read a paper on "Acute Appendicitis in Children," and the discussion following was opened by Dr. I. N. Brainerd of Alma and participated in by several others. Dr. McLachlan related finding a patient with an appendiceal abscess pressing upon the rectum, which he opened by puncturing through the rectum; the patient recovered.

Dr. J. R. Shaffer of Elm Hall read a paper on "Diabetes" which he illustrated with charts. His paper provoked laughter and applause. The motion was made and carried that Dr. Shaffer's paper and charts be sent to the State Journal for publication.

E. M. HIGHFIELD, M. D., Secy.

County Secretaries Department

THE OVERWORKING OF SECRETARIES.

PRESIDENT'S ADDRESS, COUNTY SECRETARIES' ASSOCIATION, FIFTH ANNUAL MEETING, HELD IN FLINT, SEPT. 3, 1913.

The sigh of relief which comes from retiring secretaries and their positive refusal to accept the same honors again should move us to study into the causes which make this attitude so universal.

Perhaps none but those who have been secretaries appreciate fully the strenuous existence that must be experienced while filling the duties of this office. One very prominent in medical work once said: "The success or failure of a given society depends upon the secretary." A statement like this from an authority on the subject at once causes us to ask why should the whole responsibility be shouldered upon the secretary?

It is a fact in most societies that the secretary selects and arranges for the program; he informs the president of the many virtues of the speakers, so they can be properly introduced; he arranges for the printing and receives reporters who ask for the program; he sees that the place of meeting is obtained that it is provided with proper light, heat and special appliances for illustrating the papers; possibly, even has to dust the furniture at times. He calls the attention of every doctor he meets, to the next meeting, and urges them to be present. He probably has to meet the guests; usually entertains them at his personal expense of money and time and never thinks of allowing any work, no matter how important, to keep him from any meeting. Then when the program is over he hastens to write an extended report of it, either for the record or a Bulletin. He informs the president when he should call meetings of committees, outlining the needed work and then calls the committees together. He buys flowers for the sick and dead members of the society and formulates resolutions of sympathy. In a word, every piece of work he does, is sandwiched with Society affairs.

On the other hand, the other members usually take the part of an audience in a theater. They applaud if a good "show" has been pulled off and are either silent, or retire before the meeting is over if things go "slow." Then the secretary has added the extra duty of trying to explain, to the guest, the lack of attendance or appreciation in a given instance.

Gentlemen, this principle is wrong, when one member becomes the whole society. It is an injustice to the secretary, as it overburdens him with work and also he is doing work which others should do both for their own good and the general welfare of the society. One receives good mostly in proportion to one's efforts in a given direction; therefore the principle of using the largest possible percentage of the membership as officials is correct. The football adage of "Every man in every play" holds equally well in a medical society.

It is the duty of the president and not the secretary to *direct* the work of all officers and committees. Therefore, I say the president should be, not necessarily the oldest member or one who has never had an office or the wisest or most skilful physician, but he should be the one who has the ability and the disposition to *direct* things and not simply to be a passive incumbent of the chair. He it is then who will plan the general work of the society and will appoint members to carry it out and then see to it that it is done. This relieves the secretary of his largest burden. By the appointment of a Program Committee of which the secretary is not a member, his load is again lessened. An active Social Committee relieves him of the entertainment of the guests and the answering of telephones during the meeting. A House Committee insures that the rooms are in order and equipment provided.

When the president sees to it that the various committees do their work the secretary virtually has his work limited to the taking of minutes and reporting of work done. Where a Bulletin is published, he should be editor of the same and outside of the report of last meeting and renewing of advertisements should have all material provided by the various members and committees. When the work of the secretary can thus be restricted, then will the present antagonistic attitude of many men who would make good secretaries be abolished and will have a most efficient society on account of a proper division of labor.

C. E. Boys, Kalamazoo.

The Fifth Annual Meeting of the County Secretaries Association proved to be a very interesting meeting and those in attendance ascertained definite ideas regarding certain of the problems that confront a secretary. They went home better secretaries and we shall look for their reports which we feel assured will indicate that their County organization has profited by reason of having sent its secretary to this meeting.

New remittance blanks will be mailed to all the secretaries during the month of October. We earnestly request that hereafter these blanks be used exclusively when remitting dues to the State Secretary. The observance of this request will greatly facilitate the work of this office.

Now that your societies are resuming their meetings after a summer's recess we earnestly desire that every secretary make it a special point to send us a complete report of each meeting. The Journal desires to record and thus place on permanent record every medical meeting that is held in Michigan. We are dependent upon the secretary for this information and therefore bespeak your co-operation. It takes but a few minutes to write up your meeting: do it the day of your meeting and deposit it in the mail at once. The last forms of the Journal go to press on the fifteenth of each month. Reports that are received too late for a current issue will be published in a succeeding number.

"You cannot run away from a weakness; you must fight it out or perish; and if that be so, why not now, and where you stand."

We desire to call attention to the report of our Committee on Fee-Splitting; as published under the Proceedings of the Annual Meeting on another page. Will you not make it a point to read this report at your next meeting? It is of vital importance.

Public Health

Conducted by
Robert L. Dixon, M.D.
Secretary Michigan State Board of Health

THE PHYSICIAN AND THE HEALTH OFFICER.

Very frequently we have evidence that the relation which should exist between the physician who is in charge of a case of disease dangerous to the public health and the health officer of the jurisdiction—township, village or city—in which the case is, is not clearly understood or is not given proper consideration.

The proper relation is one of decided co-operation, yet one of distinct duties. It is to be assumed that the first knowledge a health officer has of a case of dangerous communicable disease comes to him from the physician in charge of the case, or in the event that no physician is employed, from the householder or other person related to the situation. The law states that this immediate notice shall be given and imposes a penalty for failure to comply. The great majority of physicians are law abiding in this respect, although there are far too many who absolutely disregard the provision. The text of the law referred to above is as follows:

"Whenever any physician shall know that any person whom he is called to visit, or who is brought to him for examination, is infected with smallpox, cholera, diphtheria, scarlet fever, or any disease dangerous to the public health, he shall immediately give notice thereof to the health officer of the township, city or village in which the sick person may be; and to the householder, hotel-keeper, keeper of a boarding house, or tenant within whose house or rooms the sick person may be. The notice to the officer of the board of health shall state the name of the disease, the name, age and sex of the person sick, also the name of the physician giving the notice; and shall, by street and number, or otherwise, sufficiently designate the house or room in which said person sick may be. And every physician and person acting as a physician, who shall refuse or neglect immediately to give such notice, shall forfeit for each such offense a sum not less than ten nor more than fifty dollars: Provided, That this penalty shall not be enforced against a physician if another physician in attendance has given to the health officer, or other officer hereinbefore mentioned, an immediate notice of said sick person, and the true name of the disease, in accordance with the requirement of this section."

After this duty has been performed by the physician, then his duties in relation to the spread of the disease are ended in so far as required by law. The health board is authorized thereupon to take action in order to safeguard the health of the public.

Now if this principle were to be applied literally in all instances there would be many unfortunate consequences. Far too many local health officers are not qualified to assume this obligation and are being instructed to rely upon the judgment of the physician in charge of the case or another physician employed by the board of health.

If, as should be the case, we had as health officers men whose whole duty and attention is devoted to the public health work, it might be feasible to say to the physician in charge of a case: "Now that you have made a formal report to the health officer you need have no concern regarding the further spread of this disease in this family or neighborhood."

The present situation of affairs does not, however, warrant such clear cut statement of duties. The physician and health officer must co-operate in the work. This does not mean that the physician should be willing to do the routine work of the health officer, such as placarding, instituting quarantine and fumigation. These things should be done by the health officer, as representing the board of health. The question of determining whether or not a patient is to be classed as "indigent" and therefore to be cared for at public expense should always be handled by the board of health rather

than the physician. In a great many instances the county boards of supervisors have refused to allow physicians' claims for services for indigent cases because those services were not formally engaged or authorized by the health board., In all cases of dangerous communicable diseases, if the physician believes the family will not be able to pay for his services he should immediately consult the health officer and have his further services authorized.

There is opportunity for a more general cooperation between the physician and health officer in certain jurisdictions. The blame is not entirely one-sided. In some instances the health officer assumes to take charge of the treatment of the case, while in other instances the physician assumes to release from quarantine without authority from the health board.

There are certain distinct duties for the physician and certain ones for the health officer, but their best application demands a hearty cooperation.

Book Notices

An Introduction to the Study of Infection and Immunity. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M. D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. New (2d) Edition, thoroughly revised. Octavo, 325 pages; illustrated. Cloth, $3.25, net. Lea & Febiger, Publishers. Philadelphia and New York, 1913.

The exhaustion of the entire first edition of this work in less than a year shows beyond question that it is a book of great value and utility to the practicing physician. On glancing over the table of contents it is obvious that each one of the chapters is worth many times the price of the volume, because of the fund of new and important information contained and the new ideas which are set forth. The marvelous advances of modern experimental medicine have placed within the reach of the profession new methods of diagnosis, therapeutics and prophylaxis, more exact and effective than anything hitherto known to medical science, and the physician who would possess this knowledge and master its many practical applications will find them presented in this work clearly and succinctly, and in an easy and graceful style. The most notable achievements of the past year have been embodied. These include sections on auto- and normal serum therapy, on the chemotherapy of pneumococcus infections and of cancer, and on the serum diagnosis of pregnancy (Abderhalden's Test). The entire text has likewise been given a careful revision.

It is a distinct pleasure to commend this volume to our readers for in so doing we feel certain that we will have rendered a distinct service to them. The volume merits a large sale in Michigan.

Progressive Medicine Vol. XV, No. 3, whole number 59. A Quarterly Digest of Advances, Discussions and Improvements in the Medical and Surgical Sciences. Edited by Hobart Armory Hare, M. D., Philadelphia. Lea & Febiger, Philadelphia. Pages, 303 pp. and index. Price, $6.00 per annum.

The contents of this volume is devoted to Diseases of the Throat and Its Viscera, including the heart, lungs and blood-vessels, by William Evart, M. D; Dermatology and Syphilis by William S. Gotthiel, M.D.; Obstetrics, by Edward P. Davis, M.D.; Diseases of the Nervous System by William G. Spiller, M.D.

The recent progress that has been made in the subjects that are considered as well as the literature that is reviewed enables the reader to obtain in concentrated and complete form all that is good.

Though one may be a subscriber to a representative number of medical publications, and diligently devotes an allotted amount of time to reading, he cannot consider himself as conversant with the principles of these newer discoveries and advances unless he reads and reflects upon what is here written under the various subjects that are considered. It is a summary of the opinions of authorities and through this summary one is enabled to cull that which will be of practical use in his daily practice. For this reason we commend this volume and urge our readers to read it.

Practical Medicine Series. Vol. V. 1913. Pediatrics and Orthopedic Surgery, edited by Isaac A. Abt, M.D. and John Ridlon, M.D. The Year Book Publishers, Chicago, Price $1.35. Cloth 235 pp.

This volume, one of a series of ten, published primarily for the general practitioner, is before us, and a careful perusal reveals that it maintains the standard set by former issues. The authors and publishers are congratulated upon the thorough and efficient manner in which they have covered the field, and impart so much valuable material to him who seeks to remain abreast of the progress made in these specialties.

Anatomy, Descriptive and Applied. By Henry Gray, F. R. S., Fellow of the Royal College of Surgeons; lecturer on Anatomy at St. George's Hospital Medical School, London. New (American) edition, thoroughly revised and re-edited, with the ordinary terminology followed by the Basle Anatomical Nomenclature, by Edward Anthony Spitzka, M. D., Director of the Daniel Baugh Institute of Anatomy and Professor of General Anatomy in the Jefferson Medical College of Philadelphia. Imperial octavo, 1502 pages, with 1225 large and elaborate engravings. Cloth, $6.00 net; leather, $7.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

Gray's Anatomy has for over fifty years been the best known work in all medical literature. Measured by the number of students, physicians and surgeons who use it, and by the way in which they keep it and constantly refer to it, it is incomparably the greatest text-book in medicine.

The announcement of a new edition of this great work is always a matter of exceptional interest and importance to the entire profession, and the appearance of this particular edition is especially significant because it ushers in the new era of teaching, marked by the raising and standardizing of the requirements in almost all of the medical colleges of the United States. It is generally conceded that in the near future anatomy will everywhere be taught according to the Basle Anatomical Nomenclature, and the B. N. A. terms have therefore been introduced in parentheses following the ordinary terminology, which is still in more general use, so that either or both may be used with facility.

The revision for this edition has been very thorough. Every line has been critically considered and the whole work has been brought abreast of the latest knowledge of anatomy and the most approved methods of presentation. A feature in which

Gray has always been unique—the engraving of the names of the parts directly on the illustrations—is carefully preserved. The student is thus enabled at a glance to visualize the name of the part, its position, extent and relations, thus photographing in the memory knowledge otherwise painfully difficult to retain. Colors are abundantly used, and dissecting directions accompany the descriptions of the parts. A superb index comprising both terminologies in a single alphabet completes all the service which it is possible for a book to render. Its combination of unrivaled engravings and an incomparably clear text, reflecting the life-work of many of the world's masters of anatomy, and its peculiar quality of presentation which facilitates to the utmost the acquisition and retention of a sound knowledge of its subject, have maintained it in the premier position of all textbooks on anatomy for over fifty years, and it was never stronger in attraction or farther in advance of its competitors than in this new edition.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago, Volume II. Number IV. (August 1913). Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly Price per year: Paper, $8.00. Cloth, $12.00. W. B. Saunders Company, Philadelphia, London.

This number is the largest and the most important so far issued. It contains an article covering almost forty pages on Vaccine and Serum Therapy that is based on the author's clinical work. This is an article which we wish that every one of our readers would read. It is one of the most practical articles on the use of serums and vaccines that has appeared in recent literature.

The remaining case reports are of interest and cannot be read without receiving profit therefrom. The talk on appendicitis by a California doctor and the appendix which contains Dr. Murphy's paper on Appendicitis as published some twenty years ago adds to the value of this number and causes the subscriber to lay aside the volume with a feeling that the time spent in reading its pages has caused him to derive knowledge that is of value and that may be applied in his daily work.

MALARIA: Etiology, Pathology, Diagnosis, Prophylaxis and Treatment. By Graham E. Hensen, M. D., Jacksonville, Fla.; with an introduction by Charles E. Bass, M. D., Tulane University, New Orleans. Cloth 190 pp. C. V. Mosby Company, St. Louis, Mo. Price $2.50.

This excellent monograph will enable the reader to obtain a practical knowledge of this disease. It contains a careful review of the literature and especial attention has been given to the diagnosis and treatment of malaria. He who is interested in securing an intimate knowledge of this disease will do well to secure this monograph—there is much that is valuable and useful in its pages.

A MANUAL OF OTOLOGY. By Gorham Bacon, A.M., M.D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York. New (6th) edition, thoroughly revised. 12 mo., 536 pages, with 164 engravings and 12 plates. Cloth, $2.25, net. Lea and Febiger, Philadelphia and New York, 1913.

The frequency with which new editions of this Manual are called for indicates a widespread popularity among practitioners and specialists, and shows that it fills admirably the important function of a students' text-book. Its many sterling qualities have resulted in its being "the standard manual of otology in the English language and a model for all works of a similar nature." It has never been approached in its excellent methods of presentation, and it stands practically without a rival in its special field. An examination of this new edition shows that it reflects the subject in its latest aspect. Many sections have been wholly rewritten and considerably enlarged. Emphasis has been laid on the most modern methods of diagnosis and treatment. The excellent series of illustrations has been increased by many new ones, which have been inserted wherever thy could be of value in helping to an understanding of the problems under discussion.

MINOR AND OPERATIVE SURGERY, INCLUDING BANDAGING. By Henry R. Wharton, M.D., Professor of Clinical Surgery in the Woman's Medical College, Philadelphia. New (8th) edition, enlarged and thoroughly revised. 12 mo., 700 pages, with 570 illustrations. Cloth, $3.00, net. Lea & Febiger, Philadelphia and New York, 1913.

When a medical work has reached its eighth edition it may be pronounced a conspicuous success. Only a long continued and steady demand could make possible such a record, and this in turn must be based on intrinsic value. Wharton's Minor and Operative Surgery is a book of great utility and convenience. Its text is clear, and, wherever possible, is helped by its excellent illustrations, of which there are nearly six hundred, showing in many cases the steps of the various procedures. Many of them are photographs, and in the section on bandaging they are especially abundant. This new edition gives evidence of thorough and careful revision. All matter which has become obsolete has been omitted, and a large amount of new material has been added.

The work is one that should be found in the possession of every medical man in the state be he specialist or general practitioner. In our own work in the past we have found occasion to frequently refer to this book for information and have derived from it so much that was of assistance that to be deprived of it would be considered a distinct loss. It is a distinct pleasure to call the attention of our readers to this new edition, and to commend it to them.

THE USE OF PITUITARY EXTRACT IN OBSTETRICS.

1. Pituitary is of great value in cases of weakness in uterine movements after the soft parts are well dilated. Failure in these cases is rare, probably less than 1 per cent. The later in labor, but before delivery, the more striking the effect. The danger to the child and mother is very slight.

2. As an addition to some mechanical method, e. g., the Champetier de Ribes' bag, it is of great value in bringing on premature labor or abortion. In the former case it may be sufficient in itself, but there is some risk of tetanus of the cervix, or of the uterus, especially when repeated injections are required.

3. For delivery of the placenta its use is accompanied by the danger of tetanus uteri and retention.

4. In post-partum hemorrhage a considerable percentage of failures may be expected.

When a need for a uterine stimulant arises in cases conforming to the above indications, I believe that pituitary is of the greatest value, and will act as in Cases 1 and 2, which are typical of others in my experience.—*Harrison Arch. Int. Med. Sept,* 1913

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The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, NOVEMBER, 1913 No. 11

Original Articles

A REVIEW OF OUR KNOWLEDGE OF SYPHILIS WITH ESPECIAL REFERENCE TO THE VALUE OF SALVARSAN AND NEO-SALVARSAN IN ITS TREATMENT *

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It is the duty, as well as the prerogative, of the President in retiring from office to address the Fellows of the Academy. In the selection of a topic the first essential is that it shall interest the members; the second, that the writer shall be familiar with his subject, that his words may have some weight. To fulfill the first I propose the review of a disease which enters into almost every domain of medicine and surgery and trust the same will interest you. The advances made in our knowledge of this disease during the last few years have been greater than during as many centuries before. To meet the second I have chosen to speak on a subject to which I have given twenty-five years of thought, study and practice.

HISTORY

Our more intimate knowledge of syphilis probably does not date back to more than thirty-five years ago, when in 1879 Klebs and 1882 Martineau first succeeded in animal inoculation with syphilis. Their work could not be fully substantiated by others and absolute proof at this time was not possible. But it marked the beginning of an era of historical advances in the field of syphilis and consciously or unconsciously each discovery stimulated subsequent research. Metchnikoff and Roux, in 1903, succeeded in regularly infecting the chimpanzee, using the eyebrows and the sexual organs as the sites of inoculation. Sclerosis and secondaries in the form of crusty *syphilides* followed and infection of animal to animal became possible. Neisser, in the Java expedition, proved the generalization of the virus following the primary effect on monkeys, but neither the definite lesion which resulted was rich in *spirochaetae* nor the secondary symptoms in abundance. Bertarelli, in 1906, succeeded in inoculating the rabbit, although not regularly, using the anterior chamber of the eye as the site. This was probably first accomplished by Haensell in 1881 but, as already stated, the specific nature of the reaction could not then be proven. Parodi, in 1907, inoculated intraperitoneally with regular results of syphilis and demonstrated the possibility of the production of the chancre of the testicle, a field soon more thoroughly covered by Uhlenhut and Mulzer, and which has opened the road to extensive researches in chemotherapy. Finger and Landsteiner showed through monkey inoculation the infectiousness of the gumma; Neisser, Hoffmann and Mulzer the infectiousness of the semen. Uhlenhut and Mulzer, in 1911, succeeded in transplanting the virus through the placenta after intravenous injection of intra-peritoneal fluid into the gravid animal, whose young showed signs of infection seventy days after birth. Again, Uhlenhut, by using very young animals, and which he inoculated intra-cardially, produced generalized infection.

But the most important point of the recent progress in our knowledge of syphilis is, without a doubt, the discovery of the *spirochaeta pallida* by Schaudinn and Hoffmann in 1905, which event was soon followed by the discovery of the serum reaction by Wassermann, Neisser and Bruck. In 1909, the introduction of *salvarsan* formed a further step in our knowledge, which epoch was made historical and the name of Ehrlich immortal to medicine when he favorably recommended its use to the world before the Koenigsberg meeting of German scientists in 1910. And the recent findings of Noguchi and Moore of the *spirochaetae* in the cerebrospinal fluid; and their demonstration in brain substance of living paretics by Forster and Tomasczewski have placed for all time to come the causative factor of locomotor ataxia and general paralysis of the insane in syphilis, where it has long been suspected to lie. The same may be said of many aortic diseases, of apoplexy, of certain forms of myelitis and softening of the brain and spinal cord, meningitis, endarteritis, and brain tumors.

It is a noteworthy fact that the recent advances made in our knowledge of syphilis have been rather by the laboratory man than by the practical syphilographer.

* Presidential Address, Detroit Academy of Medicine, Oct. 14, 1913.

SALVARSAN AND NEO-SALVARSAN

It is not necessary to repeat here the history of the use of arsenic, in the treatment of syphilis, with its concomitant dangers; but it is probably well to emphasize the fact that the discovery of *salvarsan* was not a mere accident but the result of the most painstaking work of many years in laboratory and animal experimentations to find a remedy capable of the destruction of the *trepanoma* without injury to the host. Ehrlich and Hata began their experiments on the lower animal; preliminary applications were made to man; then the drug was issued to a selected number of physicians in different parts of the world for trial in human syphilis. And no better evidence of Ehrlich's genius is afforded than the admirable manner in which he assumed the entire responsibility and guided the adminstration of the remedy against a storm of skepticism, criticism and aroused jealousy.

Three memorable years have since elapsed and probably at no time in the history of medicine has a remedy been so thoroughly and extensively tried throughout the civilized world. In the early, in the active stages of syphilis, in tabes dorsalis, in general paralysis, in cerebro-spinal lues, in diseases of the cardio-vascular system, in surgery, laryngology, rhinology, otology, gynecology, in obstetrics, pediatrics—yea, in every phase of syphilis and in every other division and sub-division of medicine has it been tried and with few exceptions found efficient. It is, therefore, proper that the accumulated evidence of such a vast experience be gathered together and the results placed before you.

Salvarsan (606) chemically is di-chlor-di-amido-di-oxy-arsenobenzol. By a chemical combination "it is rendered inert until the same is broken up and a large amount of arsenic can be safely introduced into the body. For example, as about one-third by weight of the substance is arsenic, in giving 0.6 *gram* one gives nearly 3 grains of arsenic or the equivalent of nearly 4 grains of arsenious acid, but the usual toxic action of this large amount of arsenic is prevented by the chemical arrangement. When, however, the compound is broken up by combination with organic material, the arsenic, which is in a reduced trivalent form, acts vigorously in a nascent way and kills any protoplasm with which it comes into contact. Combination of *salvarsan* with *spirochaetae* seems to be effected by means of the *amido* and *hydroxy* groups, which seem to anchor the compound to the *spirochaetae* and thus bring the arsenic into action. A certain amount of the compound affects the tissues also, as is seen in its tonic action, but this amount is small, except in overdoses or in the presence of diseased tissues, which are more prone than normal tissues to anchor the drug." (Nichols).

Many differences of opinion were expressed both in this and in foreign countries as to the adoption and utility of *salvarsan* in the treatment of syphilis. It was freely forestalled to disappointment, but fate has been kinder and experience has proven its worth. Most of the obstacles surrounding its use have been surmounted, the technic in its employment has been perfected, so that the fear of its injection has been diminished, if not vanished.

When the use of *salvarsan* was first introduced in human syphilis it was Ehrlich's belief that he had a drug which at a single dose would destroy the agency of syphilis—*a therapia magna sterilisans;* but in the field of actual clinical experience this hope was soon dispelled. With a few exceptions, recurrences were frequent. On the other hand it was found possible to give doses of the drug at frequent intervals; but this alone did not suffice. The remedies of centuries could not be discarded and today the best results are obtained by the judicious combination of *salvarsan* with *mercury* and under given conditions with the *iodides.*

Difficulties of administration stimulated endeavor to find a remedy as efficacious but less irritating and within a year *neo-salvarsan* (914) was given to the profession. It is a direct derivation of *salvarsan;* a condensation of the latter with sodium formaldehyde-sulphoxylate; is neutral in reaction, easy of solution, but less stable, and must be dissolved in freshly distilled water at the time of administration at a temperature not to exceed 68° to 71.6° F. It is given in dosage of 3 to 2 of *salvarsan* and in ampules form .15 to .90 grm., the amount-varying with the sex, age, weight and physical condition of the patient. The claim, that it is more neurotropic than the old, that in large doses it is more apt to produce untoward effects, has not been our experience.

Owing to the reasons already outlined, we now limit ourselves to the use of the *neo-salvarsan.* Claim is still made that it is not as efficacious, but a critical report to the American Dermatological Association at its last meeting gives it equal effectiveness and a review of the records of about 7,000 injections by various operators shows that untoward symptoms are less after the *neo-salvarsan* than after the old. Certainly in our practice it has stood the test. With the old method of intra-muscular injection we had our proportion of necrosis, but since the use of the *neo-salvarsan* we have had untoward symptoms with one patient only and never a slough. I have seen but one case of sloughing at the elbow and that was in the practice of another. It has been observed that with the second injection a re-action may be experi-

enced which was absent in the first; this we also have observed and believe it to be due to anaphylaxis.

IMMUNITY AND DIAGNOSIS

Concomitant with the discovery of the causative factor of syphilis and the means to its destruction, recognition of its presence by other than clinical signs has been made possible; so that recognition, treatment and eradication go hand in hand; and these means of recognition and control have cleared up definite factors, formerly clinically known but never scientifically explainable. The old theory that a syphilitic could not be re-infected is now found to have its basis first in the fact that he never was free of the syphilis, the *spirochaetae* being still carried; the second on the general law of the resistance to re-infection of an already infected host. As soon as the body is free of the *spirochaetae* re-infection is possible. Again, Colles' law—namely that the mother may nurse its syphilitic offspring without apparently being affected—is based on the fact that the mother has a latent infection; and, again, Profeta's law—that the healthy child may nurse its syphilitic mother with apparent immunity—has as a basis the fact that the child is itself syphilitic. But that in both of these cases the syphilis should remain mild is "due probably to some modification of the law of infection when contracted through the uterus." (Craig).

Never before has the necessity of the positive and early recognition of syphilis been more emphasized. Surgery of the initial lesion removes a focus of infection from which *spirochaetae* spread through the lyhphatics to devastate the tissues and prompt and vigorous treatment at an early date means the lessening of many foci.

While it is true that the initial lesion takes on many forms, from the apparently simple abrasion to the characteristic Hunterian induration, some difficult of recognition, yet at times the clinical manifestation is so definite that no further corroboration is necessary. When, however, the diagnosis is in doubt, several methods remain by which the presence of the *spirochaetae* may be demonstrated, more especially *the dark field illumination*. Stained preparations, notably by Giemsa's and by Levaditi's methods, have been tried, but the processes are tedious and so far the results are not very accessible to the man in general practice. Inoculation is not practical.

Spirochaetae are very seldom found in the primary stage before the third or fourth week but always before the appearance of the secondaries; are profuse in the secondary; and rare in the tertiary. Just what the mechanism is by which the tissues are damaged we do not know. "It is probable that the excessive motility of the organism and its mere mechanical action play some part; but the question of possible toxins and various antibodies is largely one for the future to determine" (Nichols). Knowledge of the life cycle of the *spirochaeta pallida* is yet vague.

Supplementary to the Schaudinn and Hoffmann's discovery came almost as a consequential endeavor of the laboratory the pure culture of the *pallida* in 1911, with which the name of Noguchi stands preeminent. With this, Noguchi's test, known as *the luetin*, a suspension of the killed cultures, an intradermical inoculation of the arm of .03 to .04 c.c. is given, and, if positive, a response is manifest within five to six days at the site of inoculation.

Curiously enough and, fortunately, possibly, the reaction is more sensitive at those stages of syphilis which are not so responsive to the Wassermann and *vice versa*. Thus it is absent in the initial stage, and usually with the early secondaries, unless provocation has been induced by energetic treatment; and is present in the latent and late stages when the Wassermann is often non-responsive. The reaction is not fully understood, but is due probably to a specific sensitization.

Intimately associated with the diagnosis and treatment of syphilis is the determination of the *Wassermann or the complement fixation reaction*. While it is not our purpose to enter into the technic, nor to consider the advantages and disadvantages of the various modifications, especially Noguchi's, it suffices to say that in general much reliance may be placed on the findings of the competent expert, provided his results are correctly interpreted.

Laboratory reports usually bear the signs of (++), (+), (+—) and (—) to indicate the degree of absoluteness or negation of inhibition of haemolysis; the sign (++) indicating complete inhibition; (+) at least fifty per cent of inhibition; (+—), inhibition less than fifty per cent; and (—), a total lack of inhibition; but it must be borne in mind that the stage of the disease and the effect of treatment on the disease affects the degree of inhibition and the signs must be so interpreted. Thus, while the sign (++) always means syphilis, in the early stage the sign (+) may be accepted as diagnostic. The same may be said of late and latent cases, where the history of infection is unquestioned. Again, in a patient who has been thoroughly treated even the sign (+—) may show the need of further treatment. The generally accepted view that in the face of clinical manifestations a negative reaction is not conclusive evidence of the absence of syphilis is borne out in practice. The sign (—) in the initial stage means nothing; yet in the secondary or suspected secondary the sign (—) may be of the utmost value, for were

syphilis present the Wassermann would undoubtedly be positive. Again, a (++), a strongly positive, and under the limitation named a (+), a positive, may be accepted as the indication of syphilis, as the few other diseases in which it is claimed the reaction may be present namely: framboesia, leprosy, scarlet fever, malaria, recurrent fever, pest, beri-beri, psoriasis, lupus erythematosus, scleroderma, pellagra, tuberculosis, pneumonia, joint rheumatism,—hardly call for differential diagnosis or are absent in this clime. Where the symptoms are obscure, where action rests upon the Wassermann findings, it is well that several specimens of the blood be sumbitted to the test and, if possible, to different experts. For "until some standardized antigen is obtained and used with the same technic by all observers" (Craig), reports will vary. Similar findings by different experts of blood drawn on different days may be accepted as final.

Just how soon after the initial lesion appears a Wassermann may be of value, just how late in the leutic history its value may be denied are matters for future determination, but in a general way it may be said that in cases of undoubted syphilis a positive reaction may be expected in eighty per cent. in the initial stage in the fourth to eighth week; in the so-called secondary ninety-five per cent.; in the tertiary eighty-five per cent.; in the latent cases, where no active lesion is present, but in which the history is plain, sixty-five per cent.; in congenital syphilis ninety-five per cent.; in apparently normal women with syphilitic children fifty per cent. In the primary stage the reaction is usually negative before treatment, but soon becomes positive. The degree of positiveness diminishes (under treatment) about the third to become negative before the eighth week.

As might be expected a positive reaction of the cerebro-spinal fluid may be obtained long after repeated examination of the blood have been shown to be negative; so that final decision should be withheld in the suspected case until all means have been exhausted. It is easily seen how the *spirochaetae* may be encapsulated in the tissues, be free in the cerebro-spinal fluid, yet absent from the blood stream.

It has been observed that after a *salvarsan* injection a weakly positive or a negative Wassermann has within a few days become positive, and so frequently has this phenomenon been found in latent cases that the test, now known as the *provocative Wassermann,* is resorted to to determine if the patient is actually cured of his syphilis. A patient, showing a negative Wassermann for a year or more, is given an injection of *salvarsan;* the reaction is positive; syphilis is still present and another course of treatment is indicated.

INDICATIONS FOR TREATMENT

Experience in treatment has fixed some definite facts. As stated, the hope of the destruction of all the *spirochaetae* with one dose of the *salvarsan* soon failed of realization; but its remarkable efficacy in all stages of syphilis has been established. As soon as the diagnosis of syphilis is made, and it should be made as early as possible, treatment must be inaugurated; a treatment vigorous, responsive and continuous within definite lines; accurately controlled by the Wassermann, luetin and provocative Wassermann tests. If the patient is seen during the initial stage, the removal of the lesion, if practical, lessens by so much an infective focus. The exact number of injections which should follow must of course vary in accordance with conditions; but, as a fairly routine measure, a second should follow within a week; then a course of mercurials for a month; a third injection; another course of mercurials for a month; a rest for a period of four to six weeks; and, if no evidence of syphilis exists, a Wassermann. If the reaction is negative, the condition of the patient must be kept under observation by repeated Wassermanns every two to four months for a year or two or more. A relapse of clinical manifestations, a return of the Wassermann to the positive are indications for the repetition of the treatment.

As a standard of cure that of the army, though with difficulty entirely applicable to private practice, may be accepted: "One year without treatment, without any suspicious clinical signs, with several negative Wassermann reactions and no positive ones, and with a negative provocative Wassermann reaction and leutin test at the end of the year."

If the patient is seen during the secondary or latent stage, the same measure of treatment should be inaugurated, varying with the intensity of the symptoms or the activity of the reactions, but with at least four to six injections in two to three months with intensive mercurial treatments.

Of the manner of treatment of the tabetic and paretic it may be briefly stated that to be successful it must be extremely energetic, fifteen to twenty injections as a minimum. But at its best the results are usually not favorable.

When mercury is administered, it should be given in doses to bring results. Where the symptoms are urgent and in all cases where it is expedient, the daily inunctions (of vasogen-mercury, grams 3) are most effective. Next to them preference is given to the injection; the solution used being a matter of individual practice. As a routine treatment we give the one per cent. aqueous solution of the mercuric iodide (red) gr. 1/6, two injections a week.

We all remember the injury to the optic

nerve which frequently followed the use of other arsenical preparations, the fear which was expressed that it might follow the use of Ehrlich's remedy; the care with which we ascertain every deviation from the normal of the condition of the eye, especially of the optic nerve; the exact condition in so far as laboratory examinations would reveal of the state of the kidneys—and how even minute variations were signs of danger and contra—indicated its use. Fortunately, such fears have not been realized; no optic atrophy has followed; the presence of kidney irritation and albuminuria, especially when evidently due to the syphilitic process, has not been inimical, and a far greater freedom in the use of *salvarsan* has been exercised. This does not imply a want of care or that judgment is not to be exercised in the selection of the cases for injection or that no contra-indication in its use exists. Dangers must always exist; unusual reaction, sometimes most alarming, will occur: nausea, vomiting, diarrhoea, a high fever, severe headaches and backaches, and even loss of sensation and of motion, impairment of sight and suppression of the urine follow the injection; but when compared with the number of injections given with no untoward symptoms the percentage is small. Advanced age, cachexia, severe diabetes, liver and cardiac diseases and organic changes of the bloodvessels and chronic nephritis are the chief contra-indications.

The intra-muscular and the intravenous injections of the *salvarsan* were followed not infrequently by this nausea, vomiting, diarrhoea, fever, and suppression of the urine. This necessitated confinement to the hospital or to bed frequently as long as a week, rarely less than two to three days. With the lessened tendency to these phenomena with the use of the *neo-salvarsan* the time of confinement hardly exceeds twenty-four hours and, as any reaction is not likely to occur within two to three hours, the injection may be safely given in the large majority of cases in the office, the patient being sent immediately to his bed. What this ability to maintain his secret means to the patient you fully realize.

METHODS OF ADMINISTRATION

Soon after the *salvarsan* was introduced, the method of administration was the intra-muscular, the subcutaneous being almost at once abandoned as too liable to be followed by dangerous infiltration. The method is still held by a few to be more efficacious on account of the slowness of absorption of the arsenic and, therefore, the longer activity against the *spirochaetae;* but the pain and induration and not infrequent sloughing which has followed the encystment of the mass—which sloughing was very slow, lasting sometimes many months, and always painful—led to the almost universal adoption of the intravenous route. And even with the lesser danger of the *neo-salvarsan* the intravenous route is preferred, on account of the almost total absence of pain, the quickness of absorption, the greater rapidity of action and the quicker elimination.

To lessen the pain and the frequent sloughing of the intra-muscular injection it may be given in some ten to twelve divided doses, of one to two c.c. each, into the buttocks.

For the intra-muscular injection, any syringe, which holds 10 c.c. to 15 c.c. of fluid may be used; the injection being made usually into the buttocks.

Many devices for use in the intravenous injection have been suggested and tried out, some clumsy and ineffective, some efficient but cumbersome. The frequency of administration renders necessary simplicity of method and so we have abandoned all but two, each in itself the simplest of its kind, *the gravity method* and what I shall call *the direct method.*

When the intravenous method was first used, the vein was cut down upon and laid bare before it was entered; today entrance is made directly into the vein. Where the vein is not easily fixed, where it easily collapses, where in fact any difficulty exists in finding entrance, the gravity method is preferred. Where, however, the case may be selected, the direct method is so simple that it at once forces itself upon us. Simple as it is to state, some training in its use and preparation is needed, for *salvarsan* or *neo-salvarsan* is a powerful remedy and with each injection new difficulties may arise; and so certain principles of administration must be followed. In the first place entrance must be had into the vein and secondly the needle must be kept within the vein during the injection of the fluid. To secure the first, after the usual preparations for administration have been made, the arm must be placed in a horizontal, firm position upon some hard substance, preferably a table; the usual rubber bandage secured around the arm with the forceps and a little of the blood allowed to flow into the syringe to denote safe entrance. The clamp is then released and the fluid very slowly injected. After the withdrawal of the needle the point of entrance is covered with flexible collodion. Every effort should be made to prevent injection of the *neo-salvarsan* into the surrounding tissue. If but little escape (and this can usually be determined by the bulging of the tissue) little harm ensues. Some pain may be present; but the mass will absorb in a few days. Should the whole syringe full be injected into the tissues, great pain may ensue, the arm and forearm become greatly swollen and evil consequences be expected. But, fortunately, with the *neo-salvarsan* little fear need be apprehended. The

arm is placed at rest, is surrounded with ice-bags or poultices, and in a few days much of swelling has subsided; in a few weeks the tissues have returned to the normal. With us the ordinary Luer 10 c.c. aspirating needle is preferred.

With the gravity method a glass tube, held in a high position on a stand, containing 250 c.c. of solution is used. To this is attached a long rubber tube, at the other end of which is a double stop-cock, to one end of which is attached the needle, to the other a small syringe to permit the flow of the blood into the syringe before the fluid is drawn from the tube, that safe entrance into the vein may be assured.

CONCLUSION

In conclusion: Is syphilis curable; in the properly treated cases is the danger of tabes and general paralysis eliminated; is marriage at any date or at an earlier date permissible; is hereditary syphilis to be obsolete? No satisfactory answer can yet be given to any of these questions. Nor can a satisfactory answer ever be given until the methods of recognition and the means of eradication have become so simple that they can hold their place in the armamentarium of the physican of average intelligence and attainment. The disease is so prevalent, its pernicious activity enters so intimately into every phase of human ailments that the weapon used must be effective enough and its mechanism simple enough to be understood by all of us; for the number which falls under the care of the expert forms but a small percentage of the whole. But such advances have been made within the last few years in our knowledge of this class of diseases; so keen have the people become to be enlightened in preventible diseases and with enlightenment so insistent on eradication of the evil, that the decade may not be far distant when science—organized knowledge—and art,—her handmaid,—may find a solution, and a disease, so destructive to human frailties, moral and physical, may itself be effaced from the earth, or at least the danger of contamination of innocent parties be removed. So be it!

—*J. Henry Smith Bldg.*

THE UTERINE MYOMA AND MALIGNANCY*

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Just one hundred years ago Sir Charles Mansfield Clarke, Physician in Ordinary to the Queen, writing of the uterine myoma, or "fleshy tubercle" as it was then called, says: "Nothing is known respecting the cause of this disease." He was astute enough diagnostician, however, to observe that "The *os uteri* may at the same time be affected by the corroding ulcer" (cancer), and "In many cases of this malady the appendages of the uterus are also found diseased, and it is by no means uncommon to find dropsical tumors of the ovaria, or of the broad ligaments, existing at the same time." We have come a long way since Sir Charles taught his students the use of iodine for the relief of myomatous conditions; and great advances have been made in our knowledge of the natural history of these growths, but in spite of all this—the mass of literature devoted to its discussion and the teachings of every day experience—a large number of the profession still cling to the antiquated idea that the uterine myoma is a benign neoplasm.

THE UTERINE MYOMA NOW CLASSIFIED AS A DANGEROUS NEW GROWTH

I think that the credit for the initiative in a larger knowledge of the uterine myoma and, latterly, the appreciation of its really serious nature, belongs to Koeberle of Strasburg; it was mainly through the adoption of his operation of supravaginal hysterectomy, introduced in 1863, that material for study began to be collected.

With a lessening mortality from abdominal operative procedures, resting on asepsis and anesthetics, an increased familiarity with disorders of the other pelvic organs associated with myomata naturally went hand in hand, and the acquirement of material led to statistical information which has finally placed the uterine myoma in its proper position among the dangerous new-growths to which the female pelvic organs are disposed. We now know that the myoma is capable of giving rise to, or is associated with, a large number of secondary conditions serious to the well-being of the individual, and may undergo various pathological degenerations inimical to health if not incompatible with life.

STATISTICS OF MYOMATA AND MALIGNANCY

Although it was long known that cervical cancer sometimes coexisted with myomatous tumors of the uterus, it was not until the microscope and improved technic made it possible, that the frequency of malignancy, especially of the fundus uteri, could be determined; and it is only within a little more than a decade past that painstaking investigations have given us positive knowledge of these conditions.

In 1904, Charles P. Noble called attention to the striking frequency of malignancy and appendigeal disorders associated with uterine myomata. His tables were based on 1188 cases of this disease from the statistics of seven different operators. To this number I now add

* Read before the Section on Gynecology and Obstetrics, M. S. M. S. 48th Annual Meeting at Flint, Sept. 4-5, 1913.

1972 cases of *myomata* from the reports of five other operators, published since the appearance of Noble's paper. This makes a total of 3,160 cases. In this number there were found 189 cases of malignancy, or five and nine-tenths per cent. Allowing for inaccuracies, where the observations of so many individuals are concerned, I find that the figures given correspond quite closely with those obtained by others in smaller series of cases, and may therefore be accepted as approximately correct to the present time.

While the present state of our knowledge does not permit of the assertion of a casual relationship between cancer of the uterine cervix and myomatous growths, the co-existence of the two conditions is of sufficient frequency to suggest a suspicion, and should receive further investigation. According to Winter, in cancer of the uterus in general, fifteen cases of malignancy of the cervix are met with to one of the fundus, showing the preponderance of cervical cancer in uncomplicated cases.

Hertel, in 1,100 cases of myomata from Klein's laboratory, found eight cases of cervical cancer; while in 468 operated cases of *myomata* there were sixteen cases of fundal cancer, approximately four time as many as of the cervix, McDonald, in 700 cases, states that, while twenty cases of *adeno-carcinoma* complicated fibroids, only six of cancer of the cervix were found in his series, the fundal growth being about three times as frequent as the cervical.

Winter found *myomata* and fundal carcinoma in 1.2 per cent. of cases; Sawey, 1.7 per cent.; Piquand, 9 per cent.; and Hartel 3.4 per cent. In Winter's second series, the occurrence of sarcoma was found to average 3.6 per cent.; while Sawey gives 1.7 per cent.; Piquand 6 per cent.; and Hertel 2.8 per cent.

From these findings, and many others, it is evident that the myoma plays an important role in the etiology of uterine cancer. This fact, however, has not been sufficiently taken into consideration, the larger efforts to save human life from the effects of this disease having been directed to operative procedures *after* the establishment of the malignancy.

EARLY OPERATION INDICATED IN ALL CASES OF MYOMATA

Now prophylaxis or prevention does not consist in the removal of existing cancer but in anticipating and forestalling its occurrence. In the myoma we are dealing with a new-growth which has been proved to be a causative agent in malignant degeneration. What can be more logical, therefore, than the removal of these tumors before they have had an opportunity to manifest their baneful influence?

Malignancy of the *fundus uteri* associated with *myomata* is an insidious conditon; its presence, as a rule, being so masked by the symptoms of the latter growth that it is rarely possible with absolute certainty to determine its existence until the uterus has been opened and inspected or subjected to microscopical examination. In these cases procrastination is fatal.

Malignancy of the uterus is most likely to develop in the presence of submucous *myomata*, less so in interstitial growths and not at all, unless by metatasis, in the subserous variety. This knowledge of location should guide us in the selection of operative procedure.

Subserous and small intramural tumors which do not impinge on the uterine cavity may be removed by myomectomy, but large multiple or single growths occupying the greater portion of the uterus demand total removal of that organ. In the light of the increasing number of reports of recurrence of malignancy in the cervical stump, supravaginal hysterectomy is not to be recommended when the tumors occupy the latter positions. If this operation is undertaken, the specimen obtained should be immediately subjected to rigid microscopical examination and, if malignancy is discovered, the cervical stump removed without delay. In these cases of stump recurrence it is altogether probable, as Neugabauer has pointed out, that cancer exists in the cervix at the time of the original operation but is unrecognized. LeSorb records thirty-one cases in which this was so, and the subjoined report seems to support the fact.

THE ADENOMA A POSSIBLE MENACE

I desire at this time also, to call attention to the possible seriousness of the *uterine adenoma*. This development is put down by Cullen and most writers as a benign new-growth, but I believe that its innocence is open to question, and that in time its potentiality for evil will be better recognized and understood. Brandt believes that the fungous endometritis so often found accompanying uterine *myomata* acts as a connecting link between the myoma and malignant degeneration; Roberts states that the adenoma is "in some cases not of a simple character, in fact" he says, "some cases described as adenoma pass insensibly over the border line and become malignant"; while Gebhard finds that "the *adenoma malignum* is in a sense a pre-stage of adeno-carcinoma." The number of cases of malignancy apparently proceeding from this new growth reported in the literature of the past ten years would indicate that the adenoma is capable of mischief and demands a more careful study than it has hitherto received.

As the pedicle of the uterine polypus is frequently the seat of carcinomatous and sar-

comatous changes, every growth of this kind removed should be carefully examined by the microscope and, where malignancy exists, the entire uterus should be removed.

CONCLUSIONS

1. In the fight against cancer no means should be left untried to eradicate this greatest scourge of the human race.

2. As the uterine myoma has been found to be an active agent in producing malignant degeneration in this organ, it follows that such tendency should be anticipated by the early removal of these growths.

3. Under the conditions outlined in this paper, radicalism in the treatment of uterine myoma becomes conservatism.

A CASE OF SO-CALLED "MALIGNANT RECURRENCE" IN THE CERVICAL STUMP

Mrs. S. entered my service at Harper Hospital in March, 1913. She had been for some time under the care of a general practitioner who evidently tiring of the case, had turned it over to the hospital. The patient had a large myomatous growth of the uterus which extended above the umbilicus. She was exceedingly anemic from repeated hemorrhages, her color was a pale jonquil yellow; and she was very feeble from the blood loss and enforced stay in bed.

After a short preliminary treatment, by which an attempt was made to bring up the woman's general condition, I did a supravaginal hysterectomy on the 21st of March. No unusual difficulties presented at the operation. A very small remnant of the cervix was left, the amputation being below the internal *os*. Convalescence was uninterrupted but slow; the patient's recuperative forces being at the lowest point. She was discharged from hospital in good condition on the 20th of April.

There was nothing especially noteworthy in the history of convalescence except two conditions which, although not uncommon in this class of cases, may or may not have had a bearing on subsequent developments. These were: headache, and dizziness, which developed on the sixth day and recurred during the entire period of hospital residence, and swelling of the feet, which appeared on the ninth day. On the fifteenth day it is noted that the face was blotched, and she had a fainting spell which lasted several minutes. During recovery the patient's temperature reached 100.2° on one occasion; the pulse never going above 92. The blood at this time was examined by Dr. Sill, who reported as follows:

Red blood cells	2,878,700
Hemaglobin	35%
Color Index	0.64
Leucocytes	2,334
Polynuclears	59%
Mononuclears	40%
Eosinophiles	1%

The red cells stain very poorly and vary much in shape. One normoblast was seen. The hemoglobin shows a slight improvement. The leucocyte count has dropped, and the proportion of the different varieties is not far from normal.

All of these conditions could be accounted for by the prolonged and serious hemorrhages from which the patient had suffered.

Subsequent History—In July the patient reported that she was again bleeding. At this time she was in excellent physical condition; the skin was of good color and the cheeks were rosy. She felt well and was quite active. Examination showed a cauliflower growth the size of a half dollar projecting through the *os* of the small cervical stump. This growth bled freely at the slightest touch. There was thickening above the cervix, and some of the pelvic glands appeared involved. A small piece of the new growth was snipped off and placed in the hands of the late Dr. Heneage Gibbes for examination. He reported that the condition was one of round cell sarcoma.

Subsequent Operation—The patient returned to Harper Hospital and on July 20th, four months from the date of the first operation, I again opened the abdomen and removed the offending portion of the cervix and as many of the pelvic glands as were found to be enlarged. The fungoid mass was first curetted away from below and the cervical stump freed from its vaginal attachments, a long forceps being left on the stump by which to deliver it after separation from above. Above, the neoplasm bulged upward as large as a hen's egg, the mass extending to the right and involving the ureter. Both ureters were dissected out for about three inches. On the left side of the pelvis there was a gland the size of a plum. All glands and fat were removed on both sides to the bifurcation of the iliacs. The peritoneum was then carefully adjusted over all raw surfaces, a gauze wick carried down through the vagina, and the abdomen closed. During the pelvic dissection a small opening was inadvertently made in the neck of the bladder, and was immediately closed by kangaroo tendon.

It occurred to me that it might be of interest to ascertain whether malignant changes were to be found also in the original tumor, of which the present cervical growth was a recurrence. Dr. Gibbes, in an elaborate report, stated that: In connection with a leiomyoma there was an advanced *spindle* cell sarcoma of the *fundus uteri*. The cervix and glands removed showed a *round* cell sarcoma.

Following the second operation the patient was very weak, but gradually rallied, and continued to exhibit an interesting series of phenomena until the fifty-fourth day, when she quietly passed out.

During this period there were certain marked symptoms which persisted at varying intervals. She was, however, so far advanced in convalescence that she was to have sat up out of bed on the twelfth day, when I left the city. The subsequent course of events are taken from my note-books as set down by the nurse from day to day.

About this time, 12th day, an involuntary discharge of urine began and continued during most of the succeeding days. This may have been due either to the giving away of the sutured bladder from extension of the malignancy, or possibly was from a leaky ureter.

The patient was very nervous through the re-

mainder of life and most of the time complained of headache or pain in the head and of dizziness. On the 28th day there was pain in the right shoulder, which appeared on the 37th day in the left shoulder.

On the 29th day, numbness of the left arm; fainted. On the 32nd day, sat up out of bed. Anorexia at intervals throughout course of disease; she was also frequently nauseated, vomiting several times on the 51st day.

33rd day: Twitching of left side and leg and left side of face, the attack lasting thirty minutes.

35th day: Had a slight convulsion. Seen by Dr. J. E. Emerson.

37th day: Severe backache all night.

38th day: Left hand and leg swollen.

51st day: less swelling of leg but parts more painful to patient when moved. Involuntary movement of bowels.

54th day: In stupor and unconcious all forenoon and could not be roused. Slight discharge from nose and mouth. Pulse slower and weaker. Died at 3 P.M. There was no autopsy.

During the whole course of the disease following the second operation the temperature never went above 101.2° (second day), remaining mostly in the vicinity of 99°, but at times reaching normal. The pulse ranged from 120 to normal, and three hours before death was 64.

A study of this case seems to show that malignancy was beginning in the cervical stump at the time of the orignal operation, and had a total hystereetomy been performed it would have probably resulted in saving the patient's life. The occurrenee of the two varieties of sarcoma in the same organ is unusual, but Dr. Morse informs me that when such reeurrenee does take place it generally assumes the embryonie type.

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X-RAY AID IN THE RECOGNITION OF PYLORIC AND DUODENAL ULCER; A NEW SIGN OF DUODENAL ULCER. *

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The place of the roentgen examination as an essential part of every complete gastric examination is now assured. Most internists and surgeons now recognize the necessity of adding the X-ray findings to other clinical evidence in every gastric ease. Yet it is only within the last three years that the development of the X-ray technic has afforded evidence of sueh material aid in the recognition of gastric and doudenal uleers, that the routine use of this method in gastroenterology seemed warranted. Elsewhere on this program will be given a diseussion of the present status of the X-ray examination in gastro-intestinal work; henee I may proceed at once to the diseussion of the subjeet in hand.

TECHNIC

The X-ray examination is essentially fluoroseopic, roentgenograms being made only when required for purposes of record or comparison and when gall stones are suspeeted. It should be remembered, however, that not over forty or fifty per cent. of gali stones can be shown by the X-ray, even under the most favorable cireumstances. It is very rare indeed that the plate examination adds any essential fact to the information gained by the fluorescent sereen.

The patient, whose stomaeh must be thoroughly empty, is given a mixture of twenty grams of bismuth[1] stirred in four ounees of water. After the behavior of the bismuth water has been studied, the patient is given a regular bismuth meal, eonsisting of ten ounees of farina mush containing one part in eight by weight of barium sulphate. Sometimes it is more convenient to use an Oriental clotted milk, sueh as kephir, fermolae, laetone, yogurt, ete. The Oriental elotted milks suspend the bismuth better than any other form of bismuth meal. The ingestion of the meal is watched by means of the fluoroscope and the patient is then examined at appropriate intervals, usually at the end of the third hour, the sixth hour and further as the cireumstanees may indicate, to determine the following points: Emptying time, size, shape, position, character of peri-

* Read before section on General Surgery, 48th Annual Meeting M. S. M. S. Flint, Sept. 4-5, 1913.

1. Although the examination is ordinarily spoken of as a "bismuth meal," bismuth is not now employed. Especially prepared barium sulphate is now used in the place of bismuth.

staltic waves, spastic manifestations, identification of pain points, mobility of the stomach and duodenum, bismuth flecks, and such special points as may arise.

FINDINGS AS REGARDS EMPTYING TIME

In studying the *emptying time* of the stomach, the following X-ray findings are suggestive of duodenal ulcer:

The stomach begins to empty at once and at a very rapid rate, bismuth being seen throughout the small intestines within a very short time. If the meal has not been a large one, the stomach may be entirely emptied within an hour. When the meal is larger, delayed pylorospasm may be set up and a small residue remaining longer than six hours may result. In the majority of cases, quick emptying will be observed. Duodenal ulcer cases which do not exhibit this quick emptying are those where actual mechanical obstruction exists, as by cicatricial constriction. It must be admitted that there are many cases of duodenal ulcer in which the emptying time of the stomach is quite normal.

This quick emptying of the stomach is not found in duodenal ulceration alone. It is also observed in cholelithiasis; in ulcer of the stomach where there has been perforation with adhesions to the pancreas; in extensive gall bladder region adhesions; and in early carcinoma of the pylorus where an infiltrating process renders the sphincter patent but has not yet produced actual stenosis.

Hypermotility at first, with later delay, especially if the meal has been a large one, may usually be considered as indicative of tardy pylorospasm associated with delayed hypersecretion, and is very suggestive of duodenal ulceration.

Suggestive of pyloric ulcer is delayed motility, with hypersecretion and "early" pylorospasm. Ulcer in the body of the stomach rarely produces delayed motility.

GASTRIC TONUS

The stomach is hypertonic or orthotonic in duodenal ulcer, but usually hypotonic or atonic in pyloric ulcer. In ulcer of the pylorus, one usually finds a condition of hypertonicity alternating with a condition of hypo- or atonicity. The alternation may be noted every four or five minutes, and when present is almost diagnostic of pyloric obstruction. The observation of this phenomenon has led to the conception of systole and diastole of the stomach (Cole).

Marked delay in the clearance of the stomach, associated with gastric dilation, is likely to be due to a benign cicatricial obstruction. Occasionally one finds marked gastrectasis with dilation in a case of pyloric ulceration which has undergone malignant degeneration, but in the majority of cases, pyloric obstruction with marked stasis without gastric dilation is significant of a carcinomatous pyloric obstruction.

SPASTIC MANIFESTATIONS

In addition to pylorospasm, which has already been referred to, certain other spastic manifestations are frequently seen in cases of gastric and duodenal ulcer, one of which constitutes what the writer believes to be a new sign of duodenal ulcer.

A spastic localized indrawing of the greater curvature is often seen at the level of an ulcer in the stomach. It was formerly considered that this spastic indrawing was pathognomonic of gastric ulcer at the level of the spasm, but the writer's experience has shown the incorrectness of this supposition.

In February, 1913,[2] the writer described this spastic hour glass stomach as a sign of duodenal ulcer, describing seven cases occurring within a year in which this sign was noted. Baron and Barsony had just reported two cases in which a spastic indrawing had been observed on the greater curvature and yet at operation and later at autopsy, no ulcer could be found in the stomach, but there was a very marked duodenal ulceration. I am now able to report sixteen operated cases of duodenal ulceration in which this spastic indrawing, high up on the greater curvature, was noted. It should be stated that there have been a number of other cases of duodenal ulceration (operated) in which no spastic indrawing was observed. In at least two other cases, the patient was examined on three successive mornings. On the first and third mornings, the spastic indrawing was noted. On the second morning, although the patient was observed repeatedly, no such spastic indrawing could be seen.

In differentiating between a spasm due to gastric ulcer and spasm due to duodenal ulcer, the writer has observed that in duodenal ulcer, there is not a point of pain on pressure over the lesser curvature corresponding to the level of the spastic indrawing; on the contrary, there is pain on pressure over the duodenum; and manipulation of the duodenal region increases the depth of the spastic indrawing. This spastic manifestation, however, has also been observed in one case of Grave's disease and in some cases of appendicitis and in at least half a dozen cases of gall stones in which, at operation, the surgeon was unable to find any duodenal or gastric ulcer.

Pseudo-hourglass formations may be due to gas distension of the colon, pressure of a deformed costal arch, etc. Often the spasmodic constriction is very transient, sometimes being

2. Western Section, American Roentgen Ray Society, Chicago.

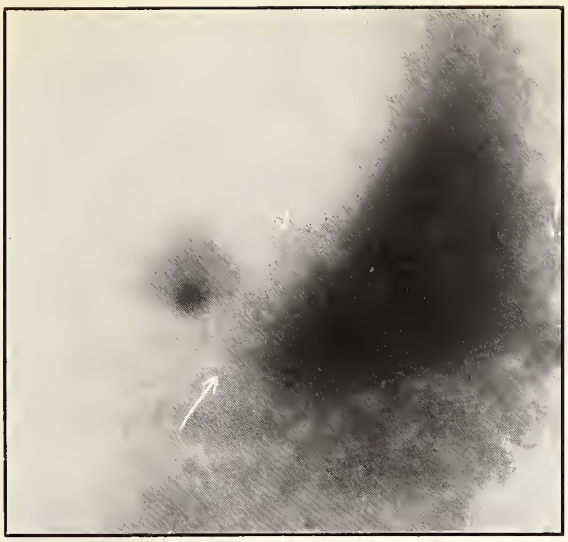
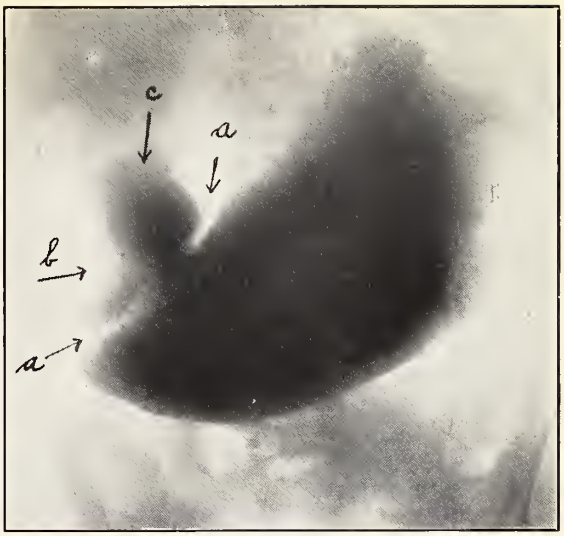


Fig. 1.



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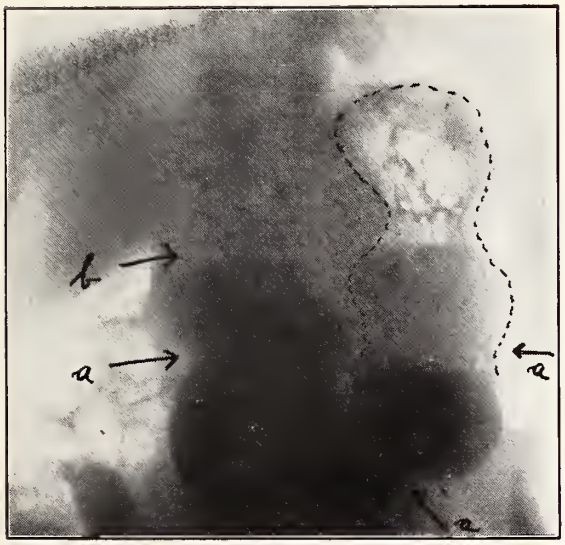

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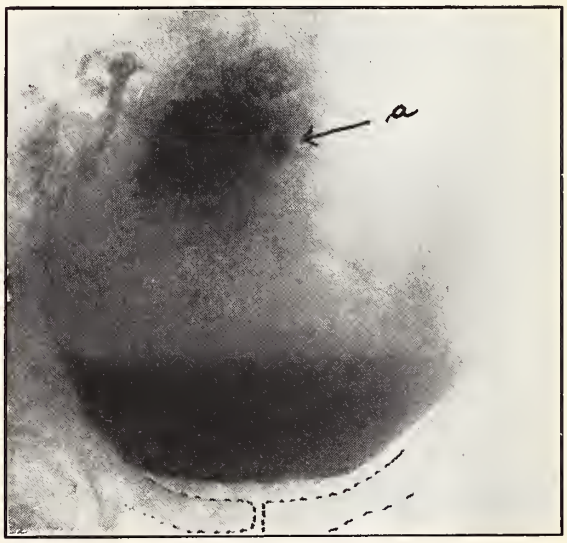

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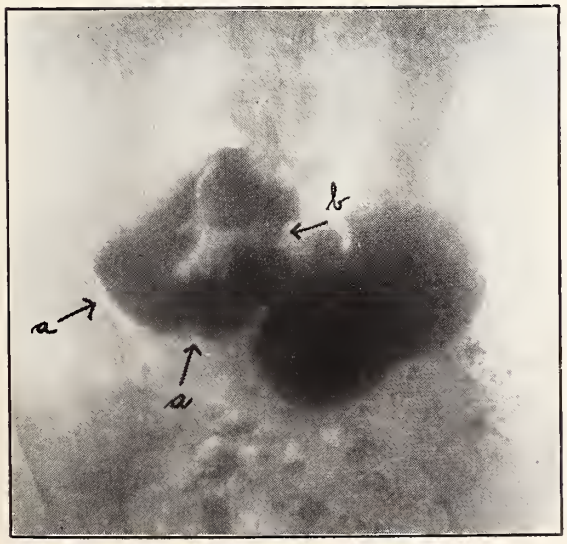

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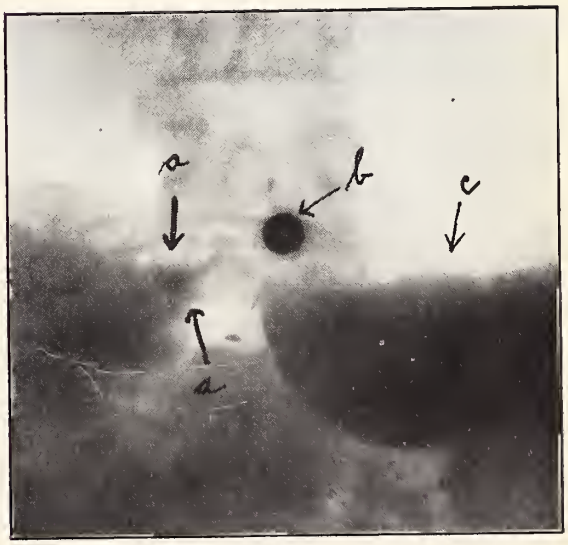
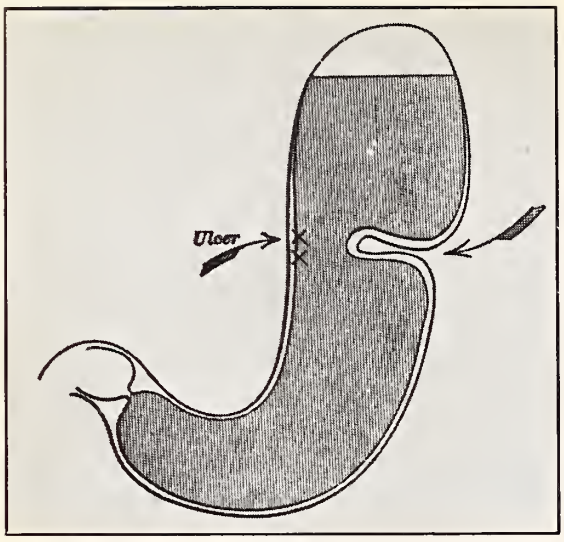


Fig. 6.

Illustrating Dr. Case's Article on Pyloric and Duodenal Ulcer.

For description see page 581



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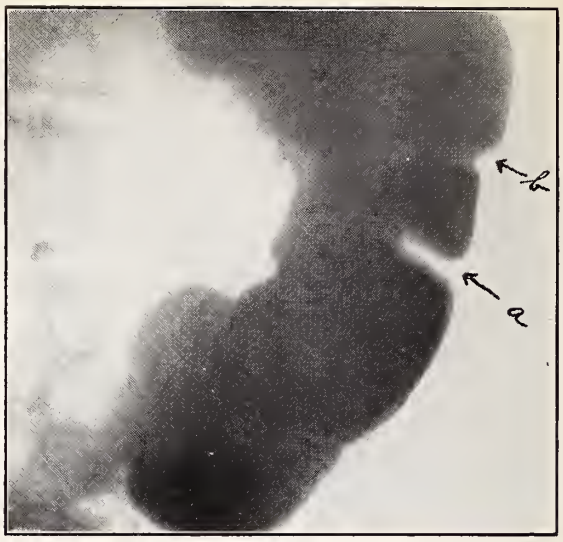

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

Illustrating Dr. Case's Article on Pyloric and Duodenal Ulcer.

For description see page 581

observed only for the first few moments following the bismuth meal, sometimes moving as an unusually deep peristaltic wave.

PAIN POINTS

A subjective pain point corresponding with the shadow of the duodenum is very significant. Pain on pressure over the duodenal shadow is significant of duodenal adhesions, and, though often due to complicated duodenal ulcers, may also be due to other causes, as, for instance, cholecystitis. A case of uncomplicated duodenal ulcer probably will not exhibit any point of pain on pressure. The location of this point of pain on pressure may be further tested by examining the patient during deep inspiration and deep expiration.

PERISTALTIC WAVES

In cases of duodenal ulceration, the peristaltic waves may be perfectly normal. In cases of pyloric ulcer, other than simple ulcer, the peristaltic waves are usually exaggerated in depth and often in number. In both pyloric and duodenal ulcer, fluoroscopic observation will demonstrate that the peristaltic waves proceed clear to the pylorus without hindrance.

THE DUODENAL BULB

The bulb of the duodenum normally contains a collection of bismuth during the entire period of digestion. Where the duodenal bulb persistently fails to fill, the indication is duodenal ulcer or periduodenitis with resulting adhesions. This same appearance has been observed in pancreatic carcinoma.

Sometimes duodenal ulceration causes a persistent filling defect in the shadow of the duodenal bulb. This is often very satisfactorily studied under the fluorescent screen, but in heavy patients, a series of plates will be required to determine this point.

Unusual filling of the entire duodenum is a frequent observation in cases of duodenal irritation, not only in duodenal ulcer, but in gall stones, or periduodenal adhesions from any cause. This unusual visibility of the duodenum is an indication rather of a patent pylorus than of lag in the motility of the duodenum. When the cicatrix attending duodenal ulceration obstructs, the filling of the duodenum is very characteristic, marked distension of the duodenum being present on the upper side of the constriction.

In cases of pyloric stenosis due to ulceration, the duodenum is seen not at all, or only with difficulty. Causing the patient to lie upon the right side for a few moments and then turning quickly on the back while holding the breath frequently permits better filling of the duodenum and more accurate study of its outlines.

In rare cases, a fleck persists in the duodenum in the crater of an old ulcer. The writer has seven operated cases in which a bismuth fleck in the duodenum proved to be in the crater of an ulcer. More commonly the duodenal bulb retains a residue of bismuth for some time after the stomach has been emptied, but this residue is larger than the crater of an ulcer and does not, except in the rare cases referred to, cling to the ulcer crater.

In the differentiation between gall stones and duodenal ulcer, the X-ray frequently renders material aid. As stated above, the writer has demonstrated that galls stones, when present, may be successfully shown in properly made roentgenograms in fully forty per cent. of cases where stones are present.

Within the last year and a half, the writer has been able to demonstrate gall stones in more than fifty cases by means of the X-ray. In many more cases, contributary evidence is afforded by the X-ray examination[3].

CONCLUSIONS

From the foregoing, it appears that in certain cases, especially cases of simple pyloric or duodenal ulcer, the X-ray findings may not be significant of anything other than the normal. But in the great majority of cases, in the writer's experience, the X-ray examination is likely to prove of great value, especially when the findings are carefully studied in connection with the other clinical data, and differentiation between pyloric and duodenal or gall bladder lesions is frequently made possible.

DESCRIPTION OF PLATES.

Figure 1. A small annular carcinoma at the pylorus. Emptying time longer than ten hours. Stomach not yet dilated. The arrows showing the filling defect due to carcinoma. In the region of the pylorus the navel marker shows.

Figure 2. Benign cicatricial obstruction at the pylorus, following old pyloric ulcer. Note the enormous dilatation of the stomach, requirng longer than thirty-six hours for complete emptying. a, a, a, peristaltic wave; b deformity due to extensive adhesions; c pylorus, the seat of ulcer.

Figure 3. Benign pyloric stenosis, active ulcer. Marked dilation. Exaggerated depth of peristaltic waves. Periodically the stomach relaxed and the waves were scarcely noticeable. a, a, a, peristaltic waves; b pylorus, the seat of ulcer.

Figure 4. Residue in the stomach twenty-four hours after the bismuth meal in a case of benign cicatricial pyloric obstruction. a, navel marker, near which is a collection of bismuth in the small intestine. Lowest border of the stomach reaches almost to the pubes.

Figure 5. Pyloric ulcer with perigastric adhesions, producing obstruction of the duodenum in the last third. Exaggerated depth of peristaltic waves. Delayed emptying. a, a, dilated duodenum; b, pylorus.

3. For the details of technic see paper read before the American Medical Association, Minneapolis, 1913, Surgical Section.

Figure 6. Six hours after the bismuth meal. Deep ulcer just on the duodenal side of the pylorus. Bismuth in crater of ulcer. Mechanical obstruction. Delayed emptying. a, a, ulcer crater filled with bismuth; b, navel marker; c, residue in stomach six hours after meal

Figure 7. Diagram of spastic indrawing on the greater curvature, formerly considered pathognomonic of ulcer on the lesser curvature opposite the spasm.

Figure 8. Radiogram of persistent spastic indrawing on greater curvature. Peristaltic waves began above and passed the spasm, but did not obliterate it. Ulcer on lesser curvature opposite the spasm. a, spastic indrawing; b, peristaltic wave.

Figure 9. Spastic hourglass stomach, caused not by ulcer on the lesser curvature, but by duodenal ulcer.

Figure 10 Callous duodenal ulcer, producing deformity in the duodenal bulb.

Figure 11. Callous gastric ulcer on lesser curvature just proximal to the pylorus.

Figure 12. Gall stones. The terminal ileum and the spastic colon are filled as the result of a bismuth meal.

DIRECT BLOOD TRANSFUSION. *

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In the present discussion of this subject we will consider but two phases:

First, The indications for direct transfusion, and second, The method of choice.

Outside of the various experimental fields, the indications, which require the introduction into the circulation of an increased quantity of all the blood elements, are clear cut and there should never be much doubt as to when this procedure should be adopted.

Transfusion, however, is rather frequently done when the simple administration of serum or even saline solution would answer almost equally as well and in this class of cases the practice should be discontinued. Again, this operation is frequently applied in cases in which there is no rational indication for its performance—a procedure that will do much to bring the operation into disrepute.

The chief blood element that is desired when direct transfusion is indicated is, in all probability, the red blood cell. It has been shown that the withdrawal of blood up to a certain percentage of the total volume is almost invariably followed by recovery and that the loss of a very small amount in excess of this per cent is usually followed by sudden death. This certainly would indicate that death from hemorrhage, as experimentally performed, was in reality a true tissue asphyxia—in other words a sufficient number of red blood cells must always be present so that a certain definite amount of oxygen can be supplied and if the percentage of oxygen is decreased beyond this needed amount death promptly results.

The other blood elements supplied by direct transfusion are the leucocytes, platelets and serum. Theoretically the administration of a large number of white blood cells in acute infections should be of value. However, when we stop to consider that such diseases are for the most part combated by specific ferments which in most instances require a period of from three days to two weeks for their development it is plain to see that the introduction of normal leucocytes will give but little help in a critical case even though the leucocytes may be the cell capable of forming the desired ferment.

With regard to the platelets but little is known but it is assumed by several authors that they play an essential part in blood coagulation. However that may be, the administration of serum, which in all probability contains many platelets when used, answers this purpose so admirably that a separate use of platelets is not desired.

Billings, in an excellent article on "Internal Hemorrhages; Can We Control Them?"[1] has clearly given the indications for the use of serum. Where the amount of blood lost in any given case of intractable hemorrhage is not sufficient to be of danger to the patient, the use of serum, preferably human, is always indicated in preference to direct transfusion, inasmuch as the coagulation time is decreased equally as well with serum as with the entire blood.

Bernheim[2] recently has advocated the use of transfusion after hemorrhage in gastric or duodenal ulcer, especially in the quiescent stage a few days following active bleeding. If the patient's condition is seriously embarrassed this is well and good, but if the bleeding area cannot be controlled at the same time, the introduction of too great a quantity of fresh blood may so increase the pressure as to renew hemorrhage even after a period of many days.

Bernheim also readvocates the use of direct transfusion in pernicious anemia. While the number of cases of pernicious anemia which have been treated in the manner reported so far is not great, yet there is not, so far as I am able to ascertain, a complete cure on record. There is always temporary improvement probably due to the fact that red blood cells capable of functionating in a normal manner are given to the patient. But, such cells are not nucleated; they are not capable of reproducing and furnishing new healthy red blood cells to the patient and we should not logically expect anything but what we obtain—temporary improvement only.

It seems reasonable to divide the necessity

* Read before the Section on Surgery, M. S. M. S. 48th Annual Meeting at Flint, Sept. 4-5, 1913.

1. Jour. A. M. A. Vol. LXI. No. 4.
2. Jour. A. M. A. Vol. LXI. No. 4 p. 268.

for the introduction of new blood in any given case according to the physiological action of the various blood elements. According to this, the chief indication for the administration of whole blood is when the red blood cells are needed for their normal physiological action.

In this class of cases would come severe hemorrhage from any cause whatsoever that can be surgically cured; also following repeated small hemorrhages in cases in which the hemoglobin index is low and there is a marked decrease in the number of red blood cells. In this latter division would fall most cases of gastric or duodenal ulcer and repeated hemorrhage from ulcer of the lower intestinal tract or rectum. In such cases, when transfusion is indicated it should be performed just before or during the radical operation, for the permanent relief of the cause of hemorrhage. By thus supplying fresh blood elements the radical operation is performed with less risk to the patient both from the anaesthesia and the operative procedure.

With regard to the use of transfusion in acute infections, as stated above, it is difficult to conceive that the addition of fresh blood would be of very great benefit. It is true that a small amount of general proteolytic ferment would be given the patient but no ferment specific for the micro-organism causing the disease would be present unless the donor had recently recovered from the same infection. However, the addition of such a ferment is not desired in such cases as the serious condition of the patient is in all probability caused by a too rapid destruction of the micro-organism causing the disease and consequent liberation of its poison and a farther increase in the amount of this specific ferment would simply hasten the end.

Recent work by Butterfield and Peabody[3] has proved that in experimental pneumococcus infection the oxygen combining power of the blood is diminished and there is a marked decrease in the percentage of oxygen in arterial blood. Peabody[4], in a study of lobar pneumonia, found that in the terminal stages of this disease there is a progressive loss in oxygen content in the blood. This loss in oxygen content is associated with a loss of the ability of the hemoglobin to combine with oxygen due to the formation of met-hemoglobin.

The above work certainly points out the uselessness of attempting to prolong life by the administration of oxygen in terminal pneumonia. Inasmuch as the cause of death is apparently closely related to the formation of met-hemoglobin and thus to the inability of the red blood cells to supply sufficient oxygen there is a rational reason for benefit from direct blood transfusion in this infection.

In such conditions as gas poisoning or other forms of asphyxia, transfusion is indicated also for the desired replacement of lost hemoglobin. In such cases, as well as in pneumonia, it is easily understood that the withdrawal of blood —before transfusion—will be of advantage inasmuch as red blood cells no longer capable of functionating will be gotten rid of as well as a certain percentage of gases contained in the serum which might combine with the hemoglobin of the freshly introduced corpuscles. In such cases transfusion should follow immediately after blood letting in preference to being performed at the same time.

THE METHOD OF CHOICE

The difficulty attendant upon satisfactory blood transfusion is well attested by the number of different instruments and methods that have been employed.

It was formerly thought that in order to obtain the best results an artery of the donor and a vein of the recipient should be used. By this method the flow of blood is more certainly secured because of the arterial pressure. However, this method requires the dissection of one of the important limb arteries of the donor and thus makes the operation more formidable than if the vein to vein anastomosis were used.

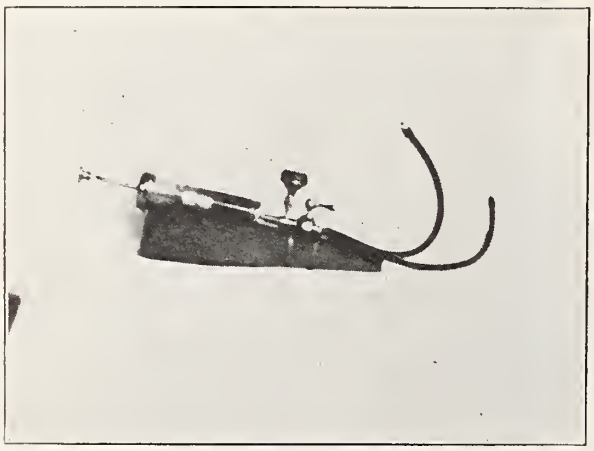
Soresi[5] has shown that a vein to vein anastomosis is of equal efficiency if the jugular vein of the recipient is used, thus taking advantage of the negative pressure in this vessel.

It is needless to go into detailed description of the many various clamps that have been devised to unite the vessels of the donor and recipient. They are all of about equal efficiency and each operator generally gives preference to the type that he is familiar with. Personally, I prefer the paraffined glass tube as it allows of slightly more space between donor and recipient and is easily applied. Whatever method of union is applied, however, the flow of blood is dependant upon either the venous or arterial pressure of the donor, depending upon the vessel of choice, and the resistance to this flow offered by the vessels of the recipient. While Soresi's contention that the jugular vein is the vein of choice for the recipient is anatomically correct for this method, yet, a vein of an extremity would be the vessel of choice if positive flow could always be assured.

The only means by which a vein to vein anastomosis of absolute certainty can be obtained where veins of the extremities of both donor and recipient are used requires that a positive pressure, *under control of the operator*, can be applied to force the blood into the recipient's vein.

3. The Action of the Pneumococcus on Blood, Jour. Exper. Med. 1913, XVII. 587.
4. The Oxygen Content of the Blood in Rabbits with Pneumococcus, Jour. Exper. Med. 1913 XVIII, 1.
5. New York Med. Jour. Nov. 9th, 1912.

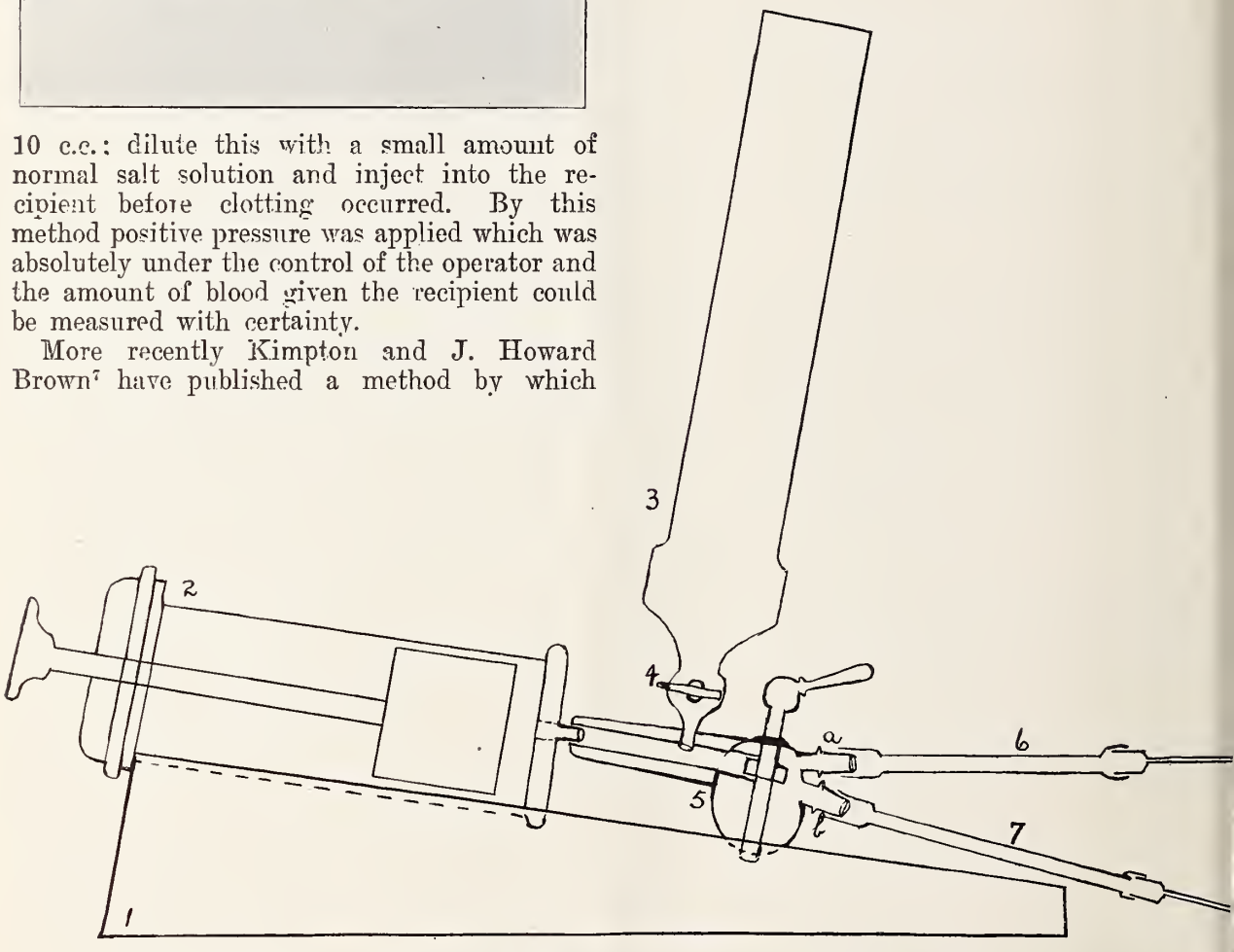
Cooley and myself[6] showed that it was possible to withdraw blood from the vein of the donor into a glass syringe in quantities of



10 c.c.: dilute this with a small amount of normal salt solution and inject into the recipient before clotting occurred. By this method positive pressure was applied which was absolutely under the control of the operator and the amount of blood given the recipient could be measured with certainty.

More recently Kimpton and J. Howard Brown[7] have published a method by which blood is drawn into a specially designed paraffined glass cylinder from the donor and then forced by pressure from an air pump into the vein of the recipient. This method is accurate and positive but has one disadvantage over the method given above, in that it requires the exposure and subsequent ligation of the vessels employed.

In applying the principle first used by Cooley and myself in a given case when it was desired to transfuse a large amount of blood, Freund[8] developed a very ingenous and satisfactory apparatus. This consists of two needles connected to a glass syringe by means of a two-way stop-cock. Above the stop-cock is a saline container for diluting the blood. Freund has transfered as much as 150 c.c. of blood from one person to another and he and I have transfused rabbits from the external jugular of one rabbit to the ear vein of another with ease. It is not possible to take the blood from the ear vein of a rabbit because of the length of time required to refill the vein after emptying.



1. Wooden inclined base. 2. Twenty-cubic-centimeter syringe. 3. Glass cylinder for normal saline solution. 4. Stop-cock. 5. Two-way irrigator with stop-cock and attachment to syringe. 6. Shorter tube with larger needle leading from donor. 7. Longer tube with smaller needle leading to recipient.

By means of Freund's apparatus we have a method that is positive. It requires no incision or anaesthetic of any kind and is so simple that it can be performed without difficulty by any competent practitioner.

In conclusion I would simply call your attention to the fact that in fully 30 per cent. of cases direct transfusion is an emergency opera-

6. Jour. A. M. A., Feb., 1913.
7. Jour. A. M. A., July 12, 1913.
8. Jour. M. S. M. S., Sept., 1913.

tion. We now have in this method a safe way of transfering blood even under the most adverse conditions. Concerning the amount of blood needed for any given case it may be stated that cases suffering from gas or any other form of hemoglobin using poisoning need a larger amount of blood than those in which the procedure is adopted following simple hemorrhage.

DISCUSSION

DR W. E. MC NAMARA, LANSING.

I have been very much interested in this paper, and it has brought out several things that I had not heard. I began the first time, to take an interest in Carrol's papers in 1908. I was located in the mining district, and had very little laboratory facilities, and became very much interested in transfusing a number of dogs. I carried out quite a number of his original operations, or experiments, on dogs; and it happened that in a few months I had a case of typhoid fever, of uncontrollable hemorrhage, in which I was able to use the transfusion. Since then I have transfused four others with about the usual results.

I certainly do agree with Dr. Vaughan in his conclusions that this is an operation of last resort, and that it should not be entered into without due consideration, and after having exhausted every other means. Even in those cases, in such a thing as illuminating gas poison, which is of course an almost positive indication for this; but I find, if it is possible, a great many of the cases that seem to be hopeless at the beginning, do quite well with ordinary treatment. I would like to say that in my opinion no case of gas poison should ever be allowed to proceed without transfusion. With regard to the technic, Dr. Vaughan has brought that out very well. I have, in experimental work, gone through all these cases, as they have been published in the journals, in regard to the different apparatus used for doing the operation. I would like very much to see Dr. Vaughan's new plan; it sounds very reasonable. The only objection I could think of, would be in the quantity that one would be able to get in a reasonable time. But in regard to this it seems to me that every one who is doing any kind of surgical work, or in extensive medical practice, should be familiar with the technic, and not allow a case of illuminating gas poison, or secondary hemorrhage, or a number of the other indications that Dr. Vaughan has mentioned, to die without having tried this treatment; not to proceed with transfusion on everybody, but to hold this in reserve, and as a last resort, and transfuse every single one, if possible, before the patient dies.

DR. HUGO A. FREUND, DETROIT.

Dr. Vaughan was very kind to mention this little apparatus which I have been using for about six months, not thinking it had any special efficacy of any kind, until one day I happened to show it to Dr. Vaughan and he thought it was worth while reporting. I had used it in about seven cases up to that time and had been able to transfuse small quantities of blood with very favorable results. Every one, as the doctor says, is agreed that there are certain technic difficulties in doing direct transfusion; that is the difficulties of getting the vein—making proper anastomosis and knowing how much blood is flowing from the donor into the recipient, and so on; then again, as has been brought out, we are not always where a surgeon can immediately give his skill, towards such a procedure.

This little apparatus' value consists principally in delaying the coagulation time of the blood. Every one is aware that diluting normal blood with normal saline solution will delay coagulation time. I have tried it in a great number of cases, that is taking the blood directly from a patient and diluting direct, with different proportions of a saline solution, and find if you dilute the normal blood with, up to twenty per cent. of cold normal saline solution you can delay coagulation on an average of about two to seven minutes. We have diluted up to twenty per cent. say five minutes—some blood does not coagulate in over eleven minutes, but the average time was a little over seven minutes. That is the gross coagulation. I did not use any method of coagulation in that particular time in that particular experiment, because it is really the gross coagulation that makes the difference, because if normal blood is diluted with a saline solution the probability is that delayed coagulation when it takes place is sudden; it does not coagulate in small clots, but there is a sudden coagulation takes place. This little instrument, I devised for merely practical purposes of putting relatively small quantities of blood from the donor into the recipient. It consists of a stop cock and an air cock with attachments here that will hold a normal saline solution—20 c.c., a syringe with an inclined base, the purpose of the inclined base being if any air gets into the syringe, of course it will stay at the end—the larger needle for the donor and the smaller needle for the recipient. The cold solution is in this (indicating), on top. I open that stop cock here, and draw some solution into my syringe, and then fill both of these tubes, and needles with the normal salt solution. The stop cock here is then turned off and having 4 c.c. of saline solution in here, I withdraw this syringe, and at the same time withdraw the piston until 20 c.c. of blood is in this piston. The stop cock is then turned in the other direction, and injected into the recipient. In this way small amounts of mixed solution serum, can be taken from the donor and put into the recipient, especially where we want a small amount of the elements of the blood. In one interesting case where I happened to have a case of leukemia, and at the same time I had a case of pneumonia, in the worst form, I put them to bed side by side, and transfused from one bed to the other. It went very nicely.

Dr. Vaughan stated that he used it experimentally in rabbits; but he did not mention the fact that we took the blood out of the jugular vein and put it back into the ear vein of the same rabbit. In that way we washed the blood really of this particular rabbit. The rabbit was watched for a couple of days, and there was no bad results from the experiment.

I thought this instrument might be interesting for any physician who has not the means of blood transfusion. I do not care to rob any of the glory of the surgical technic from the surgeon, but I thought it might prove worth investigating.

DR. GEORGE, ANN ARBOR.

I have been greatly interested in this subject of transfusion of blood. I have been doing some experimental work at the University, together with Dr. Polk, and we have tried various means of anastamosis, and find the most practical thing would be the glass tube. We find in any of the methods there is danger of clotting. I also found that if transfusion is carried on by joining the artery of the donor and the recipient that the blood flows through without clotting, and under the pressure of the heart, that in about five minutes' time you will deplete the entire blood of the donor and he will die of a hemorrhage; showing that a transfusion which is carried on without clotting, and it

is necessary to contnue it beyond that period of five or ten minutes, that there certainly must be some clot in the canula or somewhere, interfering with the flow. The operation itself is quite a difficult one to perform.

There was another experiment that was interesting. I had two dogs, one weighing about forty-eight pounds, and the second one weighing twenty pounds; using the larger dog as the donor, and the smaller as the recipient. We opened the jugular vein of the recipient, and raised the blood pressure of the recipient from 62 millimeters to 141. After that was done, or very soon thereafter, the donor died; he was entirely depleted of blood. Then I took another dog about the same size as the recipient, and joined him with the recipient and the second dog was bled into the recipient, also; so that the recipient had the blood of two dogs. He then died as the result of the over-transfusion; thus showing that you can over transfuse a patient with blood. In this case the over-transfused dog showed marked congestion in all the mucous membranes. When we opened him up, all the chambers in the pleural cavity were filled with fluid, and all the chambers of the heart were filled with a fluid; and the organs, the liver and the lungs, were all over congested, showing the condition which is liable to be made. So that when transfusion is done clinically, one must watch the condition of the blood pressure of the recipient, as well as the donor, and must watch the recipient very closely.

I once had occasion to connect the radial artery of the donor with the vein of the recipient. This was in the case of a woman, following her confinement, and I might say that her confinements had been close together. She was a woman that had been doing all her work, so that she had scarcely any blood before the confinement came on, and as a result she had some hemorrhage, and following that I tried various stimulants to revive her, with no effect—used salines without any result. I soon saw that something would have to be done to save her life. She had already had symptoms of respiratory paralysis. There was no blood pressure in the arms and lungs, and only a slight pulsation evident. We connected her with her husband, using a closed needle for this purpose, and her vessels soon began to fill up; warmth was imparted to her system, and pulsation soon was noticed in the radials. and the patient made a satisfactory recovery. But the essential point was that there was no blood pressure in the recipient whatever. You must watch that. and if you do not do that, you are liable to have a collapse of the donor.

In regard to this instrument, the only point of criticism that I have is the danger of clotting. For instance, it has been found that in cases of that kind you ought to transfuse about 250 c.c. of blood. If you can transfuse 250 c.c. of blood in proper time to prevent the clotting, it is a very practical device, because it does away with the technic—the special technic required in making the anastomosis between the vessels of the donor and the recipient—the technic which takes a good deal of experimental work to become perfectly familiar with. So that if one can transfuse sufficient blood in that way by repeating the injections I should think it would become very practical for any physican to use. That is the point that I am debating, whether you can repeat the injections often enough to inject 250 c.c. of blood or more. If you can, it is a good method.

DR. ———

I believe the remarks of the last speaker are quite appropriate. To be efficient in this work it would seem that a remarkable blood pressure absorption should be made upon both the donor and the recipient.

It occurs to me from a physiological standpoint that in the majority of cases, where benefit is derived by the recipient, it would come in this way, from a plasma presented the recipient from the donor's blood, which of course becomes a lymph. I believe physiologically, each cell is nourished directly by lymph rather than by blood. I believe Starling, in his recent work, says that no cell in the body receives nutrition directly from the blood, but rather from the lymph. So the transfusion of fresh blood I believe owes its beneficial effect to the plasma in immediate contact with the lymph cells; so that it can be available for a lymph supply. The danger, as was indicated, by Dr. Vaughan, comes from the deprivation of the tissue of its nutrition.

This apparatus that has been shown us appeals to me as a very logical one, for the reason that you can determine the amount of blood used, so definitely; and you can determine the amount of pressure. as exercised in the changes. For those reasons it seems to me that it is the apparatus of choice.

DR. VAUGHAN

I will just answer the few questions that have been asked; with regard to transfusing 250 c.c. of blood Dr. Freund has transfused 150. and stopped then, not because there was any difficulty with the apparatus. He simply did not want to transfuse any more. When you do direct transfusion how much blood do you know that you transfuse, or how much you will need? The other point I tried to make is this: When you need serum, use serum; when you need red blood cells then transfuse, because you need the hemoglobin chiefly. It is not a matter of nourishment at all; it is a matter of the amount of oxygen supplied to the tissues, and it is a matter of quick death, or sudden death, if you supply enough to tide over this it will last several days, as you will see when you transfuse a case of pernicious anemia, that case is better for a week. The patient has the benefit of those red blood cells for at least six or seven days, and that is enough; in that time the patient has made enough new blood to be out of danger.

ILEUS *

A. I. LAWBAUGH, M.D.
CALUMET, MICH.

The term ileus is practically condemned by most surgeons, because it does not represent a condition or definite disease, but is a complexus of symptoms.

In general, ileus means the collection of symptoms produced when the passage of fecal matter and flatus through the bowel is completely interfered with. A condition which on auscultation with a stethoscope over the abdomen, one will find—as graphically stated by an English surgeon, "Silent as the grave." The arrest of the passage of bowel contents, faeces and flatus may be due to a great variety of conditions.

VARIETIES

There are three cardinal varieties—paralytic, dynamic and obstructive. The largest percentage being post operative, and due to ob-

* Read before the 19th Annual Meeting of the Upper Peninsular Medical Society held at Ishpeming Aug. 7, 1913.

struction by bands or adhesions. Other causes of this variety are intussusception, volvulus or some form of pressure causing obstruction and completely occluding the bowel lumen. The paralytic form is frequently due to some cause without the abdomen. The dynamic is a condition in which there is a spasmodic condition which shuts off the lumen of the bowel, but the condition not being one of such complete occlusion as in the other forms. Complete intestinal obstruction is a most horrible disease, in which the suffering of the patient is excruciating. The four cardinal symptoms are abdominal pain, nausea and vomiting, distension and coprostasis. When all are present and well marked they indicate a grave condition and probably a rapidly fatal ending. They may be mild in character, but are danger signals which should not be mistaken and should be thoroughly investigated as to the cause and indication.

The most common variety and most frequently seen is after abdominal operations. This variety of ileus following a laparotomy is not infrequently ascribed to a functional neurosis, caused by some disturbance of the sympathetic system.

ETIOLOGY

In a paper read before the A. M. A. meeting at Atlantic City by Cannon and Murphy of Boston, they showed that by crushing the testicles of animals the flow of intestinal contents was very much slowed and they concluded that if the animals had not been etherized the effect would have been much more marked, even to the point of complete cessation of passage of faeces and flatus or complete obstruction. In cases where they severed the splanchnic nerves, and then crushed the testicles, there was practically no inhibition of intestinal activity, showing that this inhibition was conveyed to the stomach and intestines by the splanchnic nerves. Further experiments showed that exposure to the air, unusual cooling of the gut, likewise caused no noteworthy delay, but most striking effects were seen after handling the stomach and intestines.

Removal of these organs from the abdomen and even gentle handling in the air caused great retardation. Rougher handling, such as stripping the gut between the fingers gave rise to extreme sluggishness of the small intestines. Severing of the splanchnic and then handling did not change the inactivity nor increase it by destroying the pathway of the inhibitory impulse, the result being attributed to local disturbance. due to the handling and not due necessarily to reflex inhibition from the sympathetic system or its connections with the cord proper, but entirely explained by the disturbance of the local mechanism in the wall of the gut. From these experiments the cause of dynamic or paralytic ileus is due to disturbance of this local mechanism of the gut, in some way destroying the action of the bowel muscles, or the motor mechanism of the intestines.

Toxins independent of those generated by intra-abdominal lesions may cause ileus and distension as are found in pneumonia and more rarely in acute nephritis. By what channel these extra- and intra-abdominal toxins produce paralysis is not clear. It is remarkable how slight a degree of peritonitis will stop peristalsis, especially in the weak and anaemic.

Finney emphasizes the fact that ileus occurs in cases of advanced malignant disease coexistant with a slight peritonitis that would never disturb a healthy individual.

The ileus that follows a clean laparotomy where there is every reason to eliminate operative sepsis is probably due to peritoneal trauma, but even so it is by no means safe to exclude some degree of septic infection as an associate. There is great danger even in slight intra-abdominal operations in acute cases, before immunity to toxins has been established, and may arouse an intense peritonitis and a consequent ileus.

Mechanical or obstructive ileus is at least the cause of 75 per cent. of all cases of acute intestinal obstruction. Intestinal obstruction is practically always an acute condition, but the cause producing it may operate for some time before there is a marked crisis. As Weid tersely remarks, the question is not what the cause, nor where the obstruction is, but is there an obstruction? This statement is a forcible plea for diagnosis and prompt treatment. I must again emphasize the fact that obstruction is practically always an acute condition, but the cause producing it may be one of the many pathologic conditions.

For clinical study we may classify the several forms under the following heads:

1. Through congenital apertures.
2. Into normal peritoneal fossa.
3. Through mesenteric slits or diaphragmatic rents.
4. By bands, congenital or adventitious.
5. Peritoneal adhesions.
6. Vitelline remains.
7. About viscera normally attached.
8. Kinks and knots.
9. Volvulus.
10. Intussusception.

SYMPTOMATOLOGY.

I will not take up your time in defining or explaining the various causes separately for they all practically produce the same train of symptoms and are equally productive of dire result, unless relieved by proper prompt treatment.

There are certain classical symptoms of in-

testinal obstruction which develop to a greater or less degree at some time in the progress of every case, regardless of the cause, and to these we must attach the greatest significance. Oser of Vienna calls attention to five important symptoms occurring in the following order:

1st—Fluctuation of the intestine above the seat of stricture, due to accumulated fluid.
If the case is not seen very early this may not be marked as the following meteorism will not allow it to be demonstrated.
2nd—Increased and altered peristalsis. This symptom is, however, more marked in chronic cases.
3rd—Vomiting is usually a symptom of much value and significance, but not always present.
4th—Meteorism. And lastly, but not least
5th—Pain.

There is also one other symptom which he does not enumerate, but is one of much significance, and that is absolute constipation, absence of stools and flatus.

PAIN is one of the most common symptoms of intestinal obstruction. It is colicky in nature and is produced and corresponds in time with the violent peristalsis, and when the obstruction is complete the pain is not so periodic, but more constant in its nature. Lenander asserts that some of the pain is due to pressure on the peritoneum by the distended gut. The pain location with tenderness is a fair criterion as to the localization of the obstruction. When the obstruction is in the small intestine the pain is much more intense than in the large bowel for the peristalsis is much more active in the former.

Pressure does not aggravate the pain, on the contrary firm diffuse pressure relieves it. (Senn).

VOMITING is nearly always an early and well-marked symptom of obstruction from all causes, and appears earlier and proves more persistent the nearer the obstruction is located to the stomach and the quicker the occlusion has taken place, by reason of the sudden interruption of normal peristalsis. It usually begins by the eruction of gas and hiccough, and is one of the most distressing of all the symptoms. The matters first vomited are the contents of the stomach, then bile, then brownish or greenish material. This continues with retching and straining until sooner or later the *vomitus* becomes faecal. This feculent matter may be at times the contents of the colon, but is most generally the decomposed contents of the jejunum and ileum. If the obstruction is high up it practically never becomes stercoraceous. "Too much consequence must not be attached to this character of *vomitus;* it should not be relied on for diagnosis as it is frequently absent or occurs late." (Greig-Smith).

COLLAPSE: Vital depression inevitably occurs in every case of intestinal obstruction. It closely resembles shock, as so plainly manifested in the anxious expression, the sunken, pinched features, the cold, livid extremities, great restlessness, hurried thoracic respiration, almost imperceptible pulse and subnormal temperature, cold and clammy skin. The greater the amount of bowel involved in the constriction, the greater the supply of poison produced in the strangulated part to be absorbed, the greater the shock. This statement is, however, only relatively true, as we sometimes see a profound shock in hernias where only a small knuckle of intestine is involved.

CONSTIPATION. A conspicuous feature in the clinical picture of obstruction is the absence of stools and flatus. The arrest is due to the occlusion of the lumen of the gut at the seat of obstruction, and of paresis of the intestine below this point. In some cases flatus passes after other marked symptoms are present, as in some cases of intussusception. Occasionally the use of an enema may succeed in causing the discharge of some faeces and flatus, but this comes from the gut below the seat of the obstruction.

METORISM OR TYMPANITIS. It has been shown by several authorities that this condition is the result of disturbance of circulation, causing paralysis and decomposition of the intestinal contents above the obstruction. The tympanitis is caused exclusively by distension of that part of the intestinal canal above the obstruction. The *ingesta* is not an important factor in producing the distension. Cannon and Murphy have clearly shown that the contents of a strangulated loop consists largely of a transudation from the mucous membrane due to the stagnant circulation.

The greatest importance must be attached to the foregoing five symptoms: Pain, Vomiting, Collapse, Meteorism and Constipation, yet there are other features present which also enter into the diagnosis. The pulse is frequent, soft and thready. The temperature is of distinct diagnostic value, it being low—often subnormal, and rarely rising above 100° even after perforation and peritonitis have developed. The respiration is distinctly thoracic in character and especially so after the development of tympanitis. The countenance has an anxious, oppressed expression. *Great thirst* is a marked symptom. The urine is scanty and in some cases total suppression takes place. Rigidity of the abdominal muscles indicate peritonitis, and is never a prominent symptom in intestinal obstruction uncomplicated by peritonitis. The abdominal walls may be tense, but never the rigidity of peritoneal involvment, which, if it occurs at all, is a late manifestation.. Even the most expert surgeons after resorting to all known diagnostic resources, not infrequently fail in making a correct ante-operation diagnosis. Senn, quoting Obaliniski,

proposed abdominal section in thirty-eight (38) cases of intestinal obstruction from almost every possible cause. In only about fifty per cent of the diagnosis, both as to location and character, was he proved to be correct. He is of the opinion, in which every surgeon fully coincides, that even by a resort to all the modern diagnostic aids, an accurate diagnosis is possible only in about one-third of the total number of cases. In the remaining number, when symptoms point to obstruction, (with our present means of diagnosis we are unable to make a positive diagnosis) he is in favor of an early exploratory incision through the median line, an opinion sanctioned by most surgeons of the present day.

PATHOLOGY

I have previously stated that more than 75 per cent of all cases of ileus are of the mechanical or obstructive form and that the large majority follow laparotomy for various intra-abdominal conditions. It is still practically an unsolved problem as to the cause of this most serious condition, and for which nothing definite as to prevention has been elucidated. True, Murphy and Cannon in their experiments have shown that prolonged manipulation has very harmful effects, but this can only be so in a certain number of cases, for the same result has obtained after the most rigid and careful manipulation. The question as to what is the exact factor in producing the severe systemic intoxication has also not been solved, even after most searching investigation and animal experimentation. The "Intoxication theory" of Bouchard and many others does not entirely account for *all* and the fearful fate of the affected patient. The quintessence of this theory being, that as soon as the obstruction occurs and the propulsion of intestinal contents is interfered with, excessively large quantities of bacterial decomposition products are formed, these products absorbed into the blood and there exert their toxic effect. Usually the scape-goat *bacterium coli commune* is saddled with being the cause. As the intoxication theory, however, can hardly be made to explain the great collapse in some cases of acute intestinal obstruction, one of "nervous reflex" has been advanced, especially in those where profound collapse occurs in from six to twenty-four hours after the onset of occlusion, for the production and absorption of toxines is a matter of time.

In An Experimental Study of Acute Intestinal Obstruction, by Hartwell and Hognet they state this:

"Intestinal obstruction in man, if unrelieved, speedily causes death. The fatal outcome is too rapid to be the result of starvation, and three general theories have been advanced to explain it: (1) A disorder of the nervous mechanism controlling the cardiac and vasomotor systems, (2) A bacterial infection of the organism by the passage outward of bacteria from the intestinal lumen, (3) An intoxication from poisonous substances imprisoned in the intestine orally to the obstruction." The advocates of these various theories have done a vast amount of experimentation to uphold one or the other, but up to the present time the question remains unsettled. After a long series of experiments they came to the conclusion that the "intoxication theory" has the most experimental evidence to support it, and no experiments have proved the absence of a toxomia.

Murphy and Vincent, previously quoted, found the material from the obstructed or strangulated intestine very poisonous when injected into the peritoneal cavity. They, therefore, concluded that living bacteria are the important factors, for if this material was boiled or filtered it had lost its poisonous properties. There may be other poisons, but probably never present in sufficient quantity to produce death.

Hartwell and Hognet in searching for the source of the poison accepted three possibilities: (1) Foodstuffs or substance derived from them; (2) True bacterial toxins; (3) Secretory substances from the alimentary tract and digestive glands or their derivatives. They also found that a high obstruction produces much more severe symptoms, and is more rapidly fatal than a low obstruction, yet bacteria are much more numerous in the lower bowel than in the upper. As is well known, one of the functions of the intestinal mucous membrane is to alter the substances which pass through it into the blood so that they are not toxic to the organism. They found the obstructed loops always markedly distended and the walls severely damaged by ulceration or by destruction of the *mucosa*, and sometimes even to gangrene. They resemble the lesions produced when the gastric juice, unneutralized by the duodenal contents is emptied into the jejunum. From these findings they concluded that there is a destructive agent which seriously affects the *mucosa* of the intestinal wall and thus allows the bacteria to pass through. Therefore, change in the intestinal *mucosa* is to their minds the solution of the cause of death in intestinal obstruction, and that this change is due to the irritating influence of the retained digestive juices, and the mechanical damage due to the stretching of the intestinal wall. Abnormal absorption is the essential factor. The following is a summary of the findings of their work:

1. A high intestinal obstruction, that is, 10 to 30 c.m. from the pylorus, in dogs may not produce death for ten days, provided the gut wall is not

damaged. If it is damaged the average life is only half as long.

2. In the kidney and liver there are found cellular changes which are the same as those found in many toxic diseases. The intestinal *mucosa* is found damaged to such an extent that it may readily be conceived that it has been deprived of its natural defense against the passage of toxic substances unaltered through it.

3. Bacterial invasion of the blood does not necessarily occur.

4. Dogs deprived of food for 48 to 72 hours may die as early as those fed 10 to 20 hours before the obstruction is produced. Decomposition of foodstuffs is not therefore an essential element in causing death.

5. The action of the gastric juice, bile, pancreatic juice and duodenal secretions are not a requisite in producing the symptoms and pathological changes seen in intestinal obstruction.

6. The above findings indicate that death from internal obstruction in dogs results from the presence of toxic substances in the circulating blood which produces fatal lesions in the kidney, liver and other tissues. The essential factor which admits these substances into the blood is an injury to the lining cells of the intestines caused by the irritating action of the stagnated contents, together, possibly, with the mechanical damage due to stretching. The poisons themselves may arise from the secretory activity of the various digestive glands, or from bacterial activity. They may be the same as those found in the normal tract, or they may be substances newly formed under the conditions of stagnation. Whatever their source they are innocuous so long as the *mucosa* remains noraml.

It is very interesting, however, that in later experiments these same investigators have, in addition to the conclusions before given, made the following summary:

Dogs with complete obstruction in the lower duodenum, if untreated, will live only a few days—three to ten. During this time they vomit large quantities. The urine shows marked abnormalities when compared with the urine of a dog in simple starvation.

If a quantity of normal saline solution, slightly in excess of the total loss of water in the urine and *vomitus* be given daily in the form of hypodermoclysis, the dogs promptly return to the condition of a dog undergoing simple starvation. Dogs so treated have lived in excellent health for periods of three weeks or more, showing at the end of that time every indication that they would live much longer if the treatment were continued. The important element, therefore, in the development of the symptoms seen in intestinal obstruction in dogs is the loss of water due to vomiting.

The symptoms of intoxication are those resulting from tissue disintegration following this loss. Replacement of the water cures the symptoms and prevents death over astonishingly long periods. If, however, strangulation complicates obstruction the above facts do not seem to hold true. The experimentors in forming their conclusions only obstructed the lumen and did not interfere with the circulation; hence if any clinical application was to be made it must always be borne in mind that in man there is nearly always a strangulation combined with the obstruction, nor would this application to the treatment in any way lessen the necessity of mechanically relieving the obstruction.

In a still more recent report of some animal experimentation in the Hunterian Laboratory of Johns Hopkins Medical School on Intestinal Obstruction—A Study of the Toxic Factors, is given a very interesting and profitable series of tests. I will only give you a summary of their conclusions, as it would take too much time to give even a resume of their work.

High loop obstruction in dogs causes very rapid death—24 to 60 hours as a rule, even when the loop contains no food material, nor secretion from the stomach, liver or pancreas. Low loop (ileum) of similar nature are much less rapidly fatal.

These experimentators washed out the occluded section of the bowel so as to be sure that no food or any of the above mentioned secretions were present, and yet the same toxic element became manifest.

Surgical drainage of this loop will save the dog's life. Excision of this duodenal loop does not necessarily disturb the animal's health.

The material obtained from obstructed loops is toxic when injected into dogs, the high loop being much more toxic. This material causes profound splanchnic paralysis with extreme congestion of all this area, particularly the small intestine.

The toxic material introduced into normal animals produces many changes similar to those found in the animals with closed duodenal loops: namely low blood pressure and temperature, excretion of large amounts of fluid into the intestinal canal and fatal shock.

This toxic substance given in a single injection causes a reaction in the dog which is almost identical with the picture of anaphylaxis in this animal.

These observers proved this by sensitizing a healthy dog to human serum, then after an interval of one month a large amount of human serum (140 c.c.) was injected. The blood pressure promptly fell and remained low until death two hours later. The temperature fell rapidly. The blood clotted very slowly. There was an escape of semi-fluid stools during the last hour of life. On autopsy the intestinal tract presented a striking similarity to the picture of poisoning by duodenal loop fluid, suggesting a possible relationship between this substance elaborated in the closed intestinal loops and the substance which is set free in the dog's body following the second injection of a foreign proteid. The toxic material is not injured by heating at 60° C. for any length of

time, centrifuging and filtering in any manner. It is not impaired by prolonged autolysis, by pancreatic digestion and bacterial fermentation. Hydrolysis with dilute acids probably destroys it. No such substance may be obtained by autolysis, digestion or putrefaction of the normal intestinal *mucosa*.

Injections of sub-lethal doses of this toxic material will protect against subsequent large doses and probably prolong life after a closed duodenal loop has been established.

I have gone into a somewhat lengthy detail of these various animal experiments for they have a very important bearing on the proper operative treatment of this most serious intra-abdominal lesion. I would especially call attention to the last series by the experimentors of the Hunterian Laboratory as to the effect of surgical drainage of the affected loop.

TREATMENT

In spite of the advances that have been made in methods and technic, the mortality after operative interference in acute intestinal obstruction is still a very high one. Banzi has recently collected 758 cases from literature with a mortality of fifty-seven per cent. Da Costa gives from sixty to seventy-five per cent. Even if the very advanced cases—those *in extremis*—are excluded, the mortality will still be found to be a very high one. If the diagnosis were made earlier, operations would be made earlier and the mortality would be much less. So it behooves every medical man to make every effort for an early diagnosis and the surgeon to endeavor by greater simplicity in manipulation to have less operative failures.

In a relatively small number of cases the general condition is a very good one so that the radical operation is justified, that is to go into the abdomen and relieve the cause of the obstruction at one procedure. The operative indications in acute obstruction of the bowels are two-fold, the relief of the obstruction and the withdrawal from the body rapidly, of the restrained and poisonous intestinal contents.

In far the greater number of cases, however, the condition is one of greater severity, the patient being desperately ill from shock and collapse from the absorption of the before mentioned poisonous substances, which have a baneful influence not only directly upon the intestinal muscle, but also upon the nervous system and upon the cardiac muscle. The distension of the intestine with gas adds its deleterious effect, not only by pressing upwards against the diaphram, interfering with respiration and heart action, but also by disturbing the circulation of blood in the bowel wall.

Now in these grave cases, and, as before stated, they constitute by far the larger number coming to the surgeon for operative relief, what plan shall be pursued to obtain the best results, i. e., to relieve the patient's dangerous condition due to retained poisons and distension of the bowels? The technic which is recommended by Moynihan and endorsed by practically all surgeons is more conservative than the one recommended by the great Treves, who strongly advised radical procedures. The technic as taught by Moynihan is to open the abdomen; the first distended coil of intestinal is seized and sutured to the peritoneum about the abdominal incision, every care being taken that the stitches do not penetrate the mucous membrane of the gut. A purse string suture is now inserted so as to inclose an area of the exposed gut. The edges of the abdominal incision are carefully protected by gauze packing, after which an incision is made into the inclosed purse string suture area, and the gas and other intestinal contents allowed to flow out. A Paul's glass tube is passed into the gut and the purse string suture is tied. Some operators use instead of a Paul's tube, a rubber drainage tube which is sutured into the gut as in the Kader gastrostomy operation.

Francis T. Stewart has devised a method by which the bowel can be drained without any risk of infection of the peritoneal cavity which always exists in the case if the purse string suture is used. Stewart places a clamp at either extremity of the loop of bowel and surrounds it with gauze. One half of a small Murphy button is inserted into the empty loop through a small incision. The other half of the button is squeezed into a rubber tube, the diameter of which is somewhat smaller than the flange of the button. The two parts of the button are now clamped and the clamps removed from the loop of the bowel. The intestine is then sutured to the peritoneum as before mentioned. The end of the tube can be placed in some receptacle to prevent soiling. By this simple operation of enterostomy, it is possible to tide over the acute fatal symptoms and thus save life.

When the patient has rallied from his deplorable condition, the cause of obstruction can be searched for and removed without so much risk as when done without a previous enterostomy. A great lessening of mortality in the treatment of intestinal obstruction will be sure to follow an increased frequency of operation in two stages.

The late Professor N. Senn, who no doubt was the greatest authority on intestinal surgery, emphasizes in the following words the value of enterostomy:

"It is the duty of every practitioner to perform it in all cases in which, through tympanitis, or the prostrated condition of the patient, laparotomy is out of the question. Enterostomy is a life-saving effort, and as such no

patient should be allowed to die without giving him the possible benefit of this operation."

Against the operation of enterostomy alone, a number of arguments have been advanced:

1. The cause of obstruction remains unrelieved.

2. There may be a gangrenous process present, or gangrene may set in unless the obstruction is relieved.

3. After enterostomy, a fecal fistula may remain which may require a second operation for its closure

As to the first, if nothing but the enterostomy is done it is true the obstruction remains unrelieved and a further operation will in all probability be required.

The dangers of an operation for obstruction when there are no acute symptoms are, however, so much less, and the technical difficulties are also so much less, that the division of the operation into two stages is justifiable and it is receiving the approval of many surgeons.

What happens in a laparotomy under the conditions of acute obstruction? It must be done *hurriedly;* as soon as the abdomen is opened a large mass of distended intestines present, and even with the greatest of care some of them will protrude, making the manipulation tedious and difficult, and in spite of all possible gentleness the peritoneal covering of the bowel is apt to be torn. Very often to find the obstruction it will be necessary to partly *eviscerate,* and this causes enormous shock and the replacement is very difficult unless some of the coils are emptied by aspiration and it is much more difficult to prevent soiling than in the plan previously mentioned; in such cases we have the high mortality. In a few cases the operation of enterostomy alone may relieve the obstruction, as in the case of bands where the relief of the distension may allow the intestine to slip out under the band.

2. It has been advanced as an argument against the operation of enterostomy, that if the search for the obstruction is not done, gangrenous intestine may be left in the abdomen, or unless the constriction is relieved a constricted part of the bowel may become gangrenous. The frequency of gangrene is not, however. as great as is commonly believed.

In Mt. Sinai Hospital the records show that excluding cases of volvulus and intussusception, which are not very frequent causes of obstruction, gangrene occurs in about five per cent. of patients with acute obstruction. If gangrenous gut is found at the time of the enterostomy, or laparotomy, what is to be done? We must *not* be tempted to do immediate resection, for in these cases the mortality is extremely large. The better way is to follow the plan of Mikulicz. The gangrenous loop is brought outside the abdomen, fixed parallel to the wound, and the enterostomy performed above it.

3. Another objection that has been urged against the opening and drainage is that a fecal fistula will remain which may require a dangerous operation for its closure. If the operation is done as before described a fistula will remain in only a small proportion of cases, unless some complication, such as sloughing has taken place. There must not be too much delay in performing the second operation, for if the drainage is from the small intestine it may cause starvation. Twenty-four to forty-eight hours is usually as long as proper to wait.

In conclusion I will say from my own experience, which, however, has not been large, and also more from the experience of surgeons of large experience, that the best working plan for the operative treatment of acute obstruction is as follows:

A. The patient in good condition—here a more or less prolonged search for the obstruction is allowable.

B. The patient in very poor condition—Opening and drainage of the most distended loop of intestine. If possible the incision should be made small and over the site of the obstruction if this can be located.

C. The patient in fair condition—Relief of the obstruction if the same can be found at once when the abdomen is opened, and if the relief can be accomplished without complicated manipulations. Otherwise open and drain and have a second operation at a later period.

CONCLUSIONS

1. Operative interference for acute intestinal obstruction should very often be divided into two stages.

2. Enterostomy and drainage should be the operation of choice, not only in the desperate cases, but also in many patients whose condition is still a fair one.

3. Prolonged search for the obstruction and its relief should, in all patients excepting those in very good condition, be delayed until the acute symptoms have been relieved by the opening and drainage of the bowel.

4. The danger of leaving behind gangrenous intestines is a small one, it is smaller than the danger from prolonged manipulations.

5. When gangrenous intestine is present it is preferable to bring it outside of the abdomen and deal with it later; the obstructive symptoms being meanwhile relieved by enterostomy.

6. Enterostomy, thus done, is not an "extreme, irrational and blindly advised" operation, but one that embodies a distinct therapeutic principle, alleviation of acute symptoms as the first step in the relief of a pathological condition.

7. The operation of enterostomy may

permanently relieve acute intestinal obstruction.

8. Fecal fistula will remain in only a small proportion of the cases in which enterostomy has been done, if the opening and drainage is made by the Kader principle, purse-string suture and rubber tube.

Post-operative obstruction coming on soon after a surgical operation is often not recognized for a time, and the surgeon will be in doubt as to whether he is dealing with peritonitis or intestinal paresis that simulate acute obstruction.

Always bear in mind the cardinal symptoms as before given.

When in doubt, the stomach can be washed out, salines in small doses frequently repeated, a few doses of atropine or physostagmine sulph. and stimulating enemas. If these measures are not quickly followed by the passage of flatus or feces, do not delay or wait for the advent of the more serious symptoms. Open the abdomen and do what is necessary as far as the condition of the patient will allow.

I was much surprised to hear at a discussion of a paper read before the Gynaegological Section of our State Society on post operative acute intestinal obstruction that so many practitioners advised and practised the use of various medical measures and so rarely surgical methods, except in the most extreme cases.

FEVER: WHAT IT IS, AND ITS SIGNIFICANCE AS A SYMPTOM. *

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Fever has been known and recognized from the remotest antiquity. Its presence was estimated by the sense of touch and by the appearance of the hectic flush. The amount of fever was, up to the middle of last century, estimated by the acceleration of the pulse. Fever thermometers came into use within the memory of men still living. While elevation of body temperature is associated with fever, it is not always a true indication, inasmuch as we have slight variations in temperature in perfectly healthy individuals. Thirst, weakness, *malaise* anorexia and certain changes in the character of the urine are usually concommitant with fever.

It is a fact, borne out in clinical experience, that no matter the disease condition producing rise in temperature, the fever itself is the same. It may follow a chill; it may be described by such terms as "remittant," "intermittent," "continuous," as ending by "crisis" or by "lysis." So uniform is its manifestation that it would seem characteristic of the bodily organism rather than of disease. In fact, almost everything that affects the animal body is followed by reaction of greater or less moment. Nor is the evolution of heat confined to the higher animals. It is common to all living things; it is manifest in the germination of certain grains; the atmosphere of a bee-hive is said to be several degrees higher than the atmosphere surrounding. Heat is derived from chemical changes produced in and by living cells, whether animal or vegetable.

TEMPERATURE VARIATIONS

In certain classes of animals, provision is made for the regulation of temperature so that in a state of health it is fairly uniform, regardless of the surrounding medium. Particularly true is this of mammals and birds. The temperature is generally higher in birds than in mammals. Man, with a temperature as high as the normal in birds (102° to 104° F.) would be very ill. Other animals, including perhaps the majority of marine or acquatic species, have not this mechanism for heat regulation, and are known as cold-blooded or *poikilothermic.* In the former class the presence of sweat glands aids in the dissipation of heat, while loss of heat is prevented in part by thick layers of non-conducting subcutaneous fat, by fur, by feathers, and in the case of man, by clothes. Temperature standards, even among so-called warm-blooded animals, vary. In birds, for instance, there is a marked fall of temperature at night, the variation amounting to as much as 3° Fahrenheit. Even in healthy human beings there is a fluctuation of 2.7° Fahrenheit. The greatest temperature being seen in the afternoon; the lowest in the early morning hours. The cause of these variations is primarily the variation in the intensity of metabolism. Exposure to heat or cold, unless protracted, does not materially alter the temperature of the normal body. To immerse the body in water at a temperature of 104° F. will cause a rise of temperature, inasmuch as the heat of the water interferes with the dissipation of animal heat.

HEAT MECHANISM OF CHILDHOOD

In healthy infants, according to Holt, the temperature by rectum varies from 98° to 99.5° F. and an occasional range of 97.5° to 100.5° has been noted. The center for heat regulation acts only imperfectly in young children, and it is easily disturbed by slight causes. The sustained regulation of temperature in childhood is not so well maintained as in adults. Sometimes this imperfectly functionating heat regulation persists into adult life, and may explain some of the anomalous temperatures which are sometimes met with in adult patients.

* Read before the Section on Medicine, 48th Annual Meeting M. S. M. S. at Flint, Sept. 4-5, 1913.

The temperature in childhood is, as a rule, higher from corresponding causes than that of adults. We may have in children a very high temperature which is not serious, and for which no satisfactory explanation can be given. It is the continuous high temperature of childhood which is significant.

The control of the heat regulation mechanism is located, according to Tigerstedt, in the brain. We do not know for a certainty in what portion of the brain this thermo-regulatory center is situated, though puncture of the anterior lobe of the *corpus striatum* has been productive of elevation of temperature. The way in which it acts is not known. We do not possess any definite proof of the existence of any special nerves which preside over the production of heat. The means for heat dissipation is under the control of the nervous system. The vaso-motor nerves control the calibre of the cutaneous blood vessels. The secretion of sweat is a very effective means of keeping the body cool. In the dog, the exhalation and evaporation of water from the lungs accomplish practically the same result as the evaporation of the secretion of the sweat glands. The panting of a dog after exertion is in reality a cooling process.

HOW THE TEMPERATURE OF THE BODY IS ELEVATED

The production of heat may increase while heat loss remains constant, or heat production remain constant while the heat loss is diminished. According to Liebermiester, fever depends upon an adjustment of temperature regulation to a higher degree in which heat production and heat dissipation, the two factors whose product equals the body temperature, are supposed to behave in an entirely different manner, depending upon the case, but with the result of an increased body temperature.

This theory is based upon the assumption of a special centre in the brain for the regulation of heat. Sahli opposes this view with the theory that the regulation of body temperature is a highly complicated process which may be influenced and disturbed by any of the organs, but chiefly by variations in the distribution of the blood. "The internal organs are damaged by some toxic substance and there result according to physiologic laws a vascular dilation and an increase in the local circulation, in consequence of which a greater portion of the blood is in the internal organs, while the skin which serves for heat dissipation, has less than the usual supply." This means diminished heat dissipation or a heat stasis; or, as Sahli maintains, the idea that fever is due to diminished heat dissipation seems to be the simplest one and one firmly supported by physiologic facts.

A disproportion between heat production and heat loss in favor of the former, will eventually lead to an accumulation of heat and a consequent pyrexia. The concensus of opinion among such men as Krehl and Matthes, is that fever is a distinct increase in heat production, an increase rated from twenty-five to fifty per cent. Several observers, notably Staehelin, have shown that these percentages in heat production are sometimes exceeded by the amount of heat produced in the body after the absorption of a full meal; the maximum energy production occurring after a meal of carbohydrate and protein. Muscular effort is accompanied by an even greater percentage of heat production, and all without very marked elevation of temperature. The normal differs from the febrile person in being in possession of all the means for the dissipation of heat. In fever the dissipation of heat is relatively restricted.

SOURCES OF HEAT

An interesting phenomenon occurs in the initial stage where fever is ushered in by a chill. Every effort is put forth by the body to prevent the escape of heat. The clinical picture is familiar: the livid skin, blue and cold, due to the contraction of the cutaneous vessels; the shiver, the disposition of the patient to load himself with bedclothes. Internally heat production is increased, according to Liebermister in the chill of a malaria attack as much as 147 per cent. The great increase in heat production is attributed largely to muscular contraction. Though every tissue in the body is concerned to a greater or less extent in the production of heat; the cross-striated muscles are commonly regarded as its great source. They constitute over 40 per cent. of the entire weight of the body; if we leave out the skeleton, over 50 per cent. Next in importance as sources of heat are the glands of the body. Some ascribe heat production to the combustion of carbohydrates in the liver. If, however, the cord be severed, or reflex play of impulses on the muscles be abolished by anesthesia, the animal will react to all intents and purposes like a cold-blooded animal. Starling states: "The accurate balance between heat production and heat loss which is responsible for the nearly constant temperature of man, indicates the active co-operation of the central nervous system in every step of the process. Whether this function of temperature regulation can be specially located at any part of the central nervous system, so that it would be possible to speak of the heat centre in the same way as we speak of the respiratory or vaso-motor centre, is doubtful." The centres for heat loss, those at least which are concerned in the regulation of the blood supply to the skin and of

the secretion of sweat, are located in the medulla.

During the height of fever the disproportion between heat production and heat loss is not so marked. The heat loss, however, is always somewhat less than heat production. According to Krehl and Matthes, the special cause of fever does not of necessity determine the intensity of heat production. When a patient is overcome by the intensity of an infection, there is a tendency for the temperature to fall, until at times it may become subnormal.

METABOLISM DURING FEVER

The chemical process underlying heat production may be stated in brief to be oxidation, the end products of which are carbon dioxid and water. According to various writers—notably Voit, Stachelin, MacCallum and Kraus—oxidation in fever in man is usually but not necessarily increased, and where above normal excess is not great. In a normal person, so long as he has sufficient energy producing food, the tissues are not subject to oxidation. Further, not even the circulating proteins are attacked, so long as there is a plentiful supply of carbohydrates and fats. Regarding a febrile person, the situation is different. Speck differentiates two kinds of protein in the body, viz.: The cell protein which is the living protein of the cell, and the circulating protein, which is absorbed from the food. The former resists decomposition, while the latter is easily oxidized and excreted as urea. The nitrogenous output in fever is increased above normal and above the amount that can be accounted for by the food. According to Senator, the nitrogenous excretion in fever is about double that found in the state of health. In the later stages of fever, nitrogenous excretion diminishes, but does not quite attain the normal.

In some febrile processes, notably in pneumonia, there is a distinct retention in the tissues of sodium chloride; the sodium chloride secretion in pneumonia is very much diminished until the crisis, when it is excreted in large amounts. Typhoid, on the other hand, shows no such constant retention of sodium chloride. Some observers have noted a similar retention of water during the febrile process to be followed by a more copious excretion during the period of defervescence.

FEBRILE PROCESS DEVELOPED FOR THE GOOD OF THE BODY

Fever is something which is characteristic of the body rather than of the disease. In it we have a reaction due to a variety of injurious influences acting upon the body. Fever is characterized by moderate increase in oxidation, which in time produces a moderate increase in heat production. Certain changes take place which bring about a disproportion between heat production and heat loss, with a consequent rise in body temperature. The disturbance in metabolism consists chiefly in destruction of the circulating proteins, and when the febrile process is prolonged, to a larger degree in the destruction of the cell or tissue proteins. In some febrile processes water and sodium chloride are retained in the tissues to be excreted when the fever had subsided. Instead of regarding fever as the effect of an injurious agent on a passive body, it should rather be regarded "in the light of an elaborate modification of chemical processes evolved in the course of centuries of development to answer some special purpose." It is a process developed for the good of the organism, accordingly we must look upon fever as essentially a protective reaction. Hence is to be seen the absurdity of attempting to cure fever, or to treat it as such. Perhaps the rise of body temperature is necessary for the production of immune substances. The writer, with this idea in view, has never given antipyretic drugs for their antipyretic effect. Where the patient seems uncomfortable from a hyper-thermia, the use of water both inside and out would seem the wiser course. Hydrotherapy is at least over a century old. James Currie, friend of Robert Burns, and editor of Burns' poems, wrote of the beneficial effects of both cold and warm water in fevers and diseases. Particularly will the tepid bath or sponge be found effective in controlling the high temperatures of childhood. Since 1861, the value of bathing in fevers has been especially emphasized, since its inauguration by Brand of Stettin. Among the good effects of water therapy are to be noted the influence upon the nervous system lessening delirium, and diminishing tremor; increased excretion of toxins by the kidneys; the tonic effect upon the circulation; the rise in blood pressure; when these are accomplished the reduction of temperature is a matter of secondary importance.

Then again, it would seem reasonable to seek the cause of hyper-thermia. High temperatures frequently come from food intoxications; especially is this apt to be so in infants, in which case a proper adjustment of the food will remedy the condition and take care of the fever. In an adult who is accustomed to a vegetarian diet, a change to animal protein will produce a disturbance in the function of heat regulation. To restore the function to normal demands correction of the cause of the disturbance. In perhaps the majority of fevers with which the clinician has to deal, the causative factor is infection, due to the presence and multiplication of bacteria in the animal organism. It is a fact that bodily temperature may be raised at will by injecting foreign protein

into the tissues.* Bacteria are composed of protein. Is it not suggestive that bacteria by means of their protein composition may have a great deal to do in the elevation of temperature?

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* For an interesting exposition of the subject Protein Fever, see page 373. Protein Split Products in Relation to Immunity and Disease, by Vaughan.

TUBERCULOUS PERITONITIS *.

REPORT OF A CASE—THREE CELIOTOMIES—TUBERCULIN—APPARENT RECOVERY

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It is not our intention to give an exhaustive treatise on this subject, but rather to mention some of the important considerations which we find emphasized in reviewing the literature of the past five or six years, with the report of a case, showing features of considerable interest.

Tuberculous peritonitis is comparatively common among children between six and twelve years of age, and in young adults, though exceptionally seen in old people. Females are attacked much more frequently than males, in fact about eighty per cent. of these cases occur in girls and women.

Certain patholigical conditions of the abdominal organs predispose to the development of the disease. Patients with cirrhosis of the liver often die of an acute tuberculous peritonitis. It is frequently seen in operations upon ovarian tumors. Many cases have followed trauma of the abdomen, and the condition is occasionally seen in hernial sacs. With one exception, that of diffuse general miliary tuberculosis, (infection through the blood stream), tuberculous peritonitis may be considered a secondary process. The atria of the infection are: (1) the female genitalia; (2) the alimentary tract; (3) the sub-peritoneal lymphatic glands. (Primary tuberculosis of liver, spleen or pancreas occurs very rarely but peritoneal infection may result from foci primary in these organs.)

Tubal tuberculosis is a more common source of peritoneal tuberculosis than any of the others. The origin of tuberculosis of the Fallopian tubes may be hematogenous (as it may be in the vas deferens or epididymis in the male). Probably the infection more commonly occurs through the uterus. The fimbrinated end of tube remains open if there is a pure tuberculous infection. This is the only type of tubal infection in which the tube retains its patency during the inflammatory process. In the other types of infection, or, in a mixed tuberculous infection, the tendency is toward early closure of the tube by agglutination to the surrounding structures.

CLINICAL COURSE

The clinical course in an open (tuberculous) salpingitis is very similar to that of recurrent appendicitis. After a period of relief, the patient will have an attack of pain, nausea and vomiting, local tenderness, elevation of temperature, and often a discernible effusion into peritoneal cavity. Local peritonitis may result from spread of infection through the open fimbrinated end, or through a perforation in the tube at the site of the tuberculous lesion. The resulting limited peritonitis usually rapidly circumscribes itself and undergoes repair. In a mixed tubal infection the fimbrinated end becomes sealed, and the *mucosal* tuberculosis spontaneously heals in a large percentage of cases. The great resistance of the peritoneum to tuberculosis accounts for the rapidity with which slight infections usually heal, for tuberculosis of the uterus and tubes, with a resulting local peritonitis, is a more frequent lesion than ordinarily supposed. (3)

In the more severe cases requiring surgical intervention, the removal of the tube with encapsulation of the stump end, results in a cure of the local condition, and the extensive peritonitis that has resulted from repeated leakage from the end of the tube entirely disappears.

Tuberculosis, primary in the endometrium of the uterus, may, through direct extension of the process through the uterine wall cause peritonitis; or, it may cause it indirectly—the infection reaching first the lymphatic glands—and on the breaking down of these, the peritonitis may first appear.

Primary ovarian tuberculosis is extremely rare. Ovarian involvment is almost always secondary to that of the tube, resulting in a tubo-ovarian tuberculosis.

As one would naturally expect, the appendix, caecum and ileum are frequent sites through which tubercle bacilli reach the peritoneum from the intestinal tract. Actual perforation rarely ever takes place even in extensive lesions of the *mucosa*.

Next to the Fallopian tubes the appendix is the most common channel through which tubercle bacilli reach the peritoneum, the in-

* Read before the Section on Surgery, 48th Annual Meeting M. S. M. S. at Flint. Sept 4-5, 1913.

fection reaching the peritoneum ofttimes without leaving any visible atria of invasion.

Occasionally tuberculous peritonitis results from a mesenteric or sub-peritoneal tuberculous adenitis. The bacilli pass from the intestinal *mucosa* to the sub-epithenal lymph space and thus reach the lymph gland. Caseation and liquifaction necrosis follow; the glands rupture into the free peritoneal cavity producing a general tuberculosis of the peritoneum.

Primary tuberculosis of mesenteric glands occurs usually in the ileo-caecal region. The condition is very rare (41 cases reported in the literature.) It may result in a slowly developing appendicitis, or a peritonitis, sometimes with adhesions of the bowel and obstruction.

The process may be primary in the peritoneum, but in at least two-thirds of the cases, the peritonitis is a secondary trouble.

The prostrate or the seminal vesicles may be the starting point.

The process is usually latent, though cases with an acute onset are not uncommon. Cases are not infrequently diagnosed salpingitis, appendicitis, cholecystitis, and even a few have been mistaken for strangulated hernia.

DIAGNOSIS

The diagnosis is usually not difficult. It is easier in the female than in the male. The thickened *leathery condition* of the Douglas pouch and the absence of tubal fixation are valuable aids in a differential diagnosis.

The doughy resistance of the abdomen and the doughy reaction of the abdominal skin after twisting are conditions often observed.

Ascites is frequent and the effusion is sometimes haemorrhagic. There is circumscribed flatness in the encapsulated cystic type.

Tympanites may be present in the acute cases due to loss of tone in the intestines, owing to the inflammatory infiltration. It may also occur in old cases when adhesion has taken place between the parietal and visceral peritoneal layers.

A tumor mass may be present due to rolling of the omentum into a firm mass—palpable as an elongated sausage shaped tumor. Or, the mass may consist of a sacculated exudation in which the effusion is confined by extensive adhesions. Great thickening of the intestinal walls and enlarged mesenteric glands may also form tumor-like masses especially in children. Obstipation or constipation is frequently complained of.

Fever, though marked in the acute cases, is usually slight in the chronic cases. Sub-normal and irregular temperatures are common.

TREATMENT

Since the remarkable ability of the peritoneum to undergo repair from tuberculosis has become recognized, the abdomen has not been opened as frequently as it formerly was.

A permanent drain between the abdominal cavity and subcutaneous tissue has been used with fair success.

Hofmann reports four cases in which he painted all visible peritoneal tubercules with 10 per cent. tincture of iodine. Some ascites and meteorism followed, but each case made a good recovery and was apparently cured. Ofttimes some irritant such as camphorated oil, iodine, iodoform, Venice turpentine, etc., are inserted to induce an inflammatory reaction and a leukocytosis in the cavity. In the catarrhal or cystic exudative type an opening is frequently made to relieve fluid tension.[1]

Folk has demonstrated exposure to the Roentgen rays as a powerfully effectual adjuvant to the operative treatment of peritoneal tuberculosis, doing much to enhance the benefit from a laparatomy.

Tuberculin properly administrated, takes first place as a medicinal agent. In the hands of many, including Dr. J. B. Murphy, it has seemed to accomplish wonders, and explains the latter's enthusiasm for its use.

It is hardly necessary to mention that the institution of good food, fresh air and forced rest, is just as important, in the treatment of these cases as it is in tuberculosis elsewhere in the body.

CONTRA-INDICATIONS FOR SURGICAL INTERVENTION

In the more severe stage where tuberculous deposits are circumscribed and walled off they should not, at a rule, be disturbed. The opening into encapsulated, cheesy, breaking down tissue, may result in fistulas or sinuses persisting for long periods of time.

In patients with marked objective findings in the lungs, surgical intervention is usually to be avoided.

The presence of fever is regarded by some (Kuttner of Paris and others) as a contra-indication for operative treatment. Kuttner reports that after three year intervals following laparatomy (tuberculous peritonitis in ileo-cecal region) twenty-five to fifty per cent. of patients with ascitic form are cured, and about one third as many with the form without effusion.

Effusion, however, is a variable symptom, which may vary greatly in a given case from time to time. It usually appears early—following the so-called irritation stage—marked by the appearance of tubercles. Effusion may persist throughout or it may disappear and later reappear in the advanced stage either as a free fluid or as encapsulated cysts.

INDICATIONS FOR SURGICAL INTERVENTION

Surgical procedure may be required to re-

lieve acute conditions such as obstruction in the fibrous forms.

Laparatomy is likewise indicated in the exudative type with marked ascites. Ofttimes the effusion either through position or amount causes great distress to patient as well as marked functional embarrassment from pressure on abdominal organs. The removal of the fluid is of the greatest benefit to the patient's comfort and marked improvement is frequently observed following such treatment.

Removal of the abdominal focus permits recuperation and checks metastasis. Laparatomy must not be regarded as a cure in itself, even in the form with effusion.

When medical means fail or appear to be of doubtful utility, surgical intervention is indicated.

To what is the beneficial effect of a laparatomy to be attributed? Van Wickel claimed, years ago, that the evacuation of a toxic principle accounted for favorable results following operation. There can be no doubt that the removal of any appreciable amount of toxic material, bacteria and their products, will be of benefit to the patient.

However the sudden removal of the fluid—whose anti-toxic power has been already neutralized, with the resulting new effusion of normal sensitized serum—is probably the chief beneficial factor.

To the objection that the anti-toxic serum should annihilate the bacilli in all the tuberculous foci, Veit makes the following answer:

"If fluid is walled off or the osmotic pressure is so that there is not a free and continuous interchange of the local serous collection with the body circulation—the neutralizing of the serum exposed to the infective organism may result." (3)

REPORT OF CASE

Mrs. B. H., 25 years, American. First admitted to Jackson City Hospital on Feb. 9, 1910.

Family History—One maternal aunt had pulmonary tuberculosis. Otherwise family history is unimportant.

Past History—Following measles at the age of 12, patient never regained health completely. Menstruation began at 13, has always been irregular. Sometimes has gone 3 to 11 months without menstruating, and then small amount.

Pneumonia at the age of 15. Ill for 3 weeks. Six months later developed pleurisy with effusion left side from which Dr. Robinson aspirated two quarts of serous fluid. Good recovery. Somewhat anemic. She married at the age of 20. Involuntary sterility during four years of married life. No leucorrhoea.

Present trouble began with an acute attack of appendicitis in January, 1910 (three years and eight months ago). Operation was advised but refused. She changed physicians at this time and the new attendant called her condition "Walking Typhoid." She rapidly became worse, and came to us because of severe attacks of pain in her right side, vomiting, general weakness, and loss of weight.

Physical Examination—Fairly well nourished, anemic young woman.

Lungs, Left—Normal.
Lungs, Right—Normal.
Heart, Liver, and Spleen—Normal.
Urine—Normal.
Hemoglobin—65%.
Temperature—100°, Pulse 90, Respiration 24.

Abdomen—Tenderness and rigidity low down on right side, palpable tumor in it lower quadrant, size of a large orange.

Diagnosis—Diagnosis of tuberculous peritonitis was made.

Operation—Feb 12, 1910. Median Incision. Cobweb adhesions throughout. Small amount straw colored free fluid. Messentery and parietal peritoneum moderately injected and studded with small miliary tubercles. Intestines badly adhered to each other and to omentum. A number of adhesions broken up and a few small pieces of omentum removed. A large firmly adhered mass found in right iliac region. Appendix, caecum, several inches of ileum, and right tube and ovary firmly adhered together. Left tube and ovary free with peritoneal surface dotted with tubercles. Labored and prolonged manipulation was deemed inadvisible, so abdomen was closed, without drainage. No attempt was made to remove appendix. Patient left hospital at end of three weeks. Recovery uneventful. Mass in right side gradually grew smaller and patient's general health improved greatly under rest and open air treatment.

Post Operative History—In July following patient began clerical work at Niagara Falls, Canada. A few days later she had an attack of vomiting, slight fever, and noticed a mass in right inguinal region.

The attending physician later wrote us that symptoms of bowel obstruction caused him to operate on the patient on July 12, 1910, (five months after first section). Evidently no definite point of obstruction was found for the doctor further wrote that: "Adhesions were found in every direction. Some of these were broken down, but owing to the condition of the patient it was considered wiser to leave her alone." A severe diarrhoea followed this operation and persisted for two weeks.

Patient returned to us in August. During the next six or seven months she improved slightly in health, but her condition continued to remain far from satisfactory. On Feb. 13, 1911, just a year after her first operation, we began giving her tuberculin and continued same until July 31, a period of 5½ months, giving in all 33 injections.

During this time she improved in a remarkable manner. The large mass in right side of abdomen gradually grew smaller, but never entirely disappeared, and she gained rapidly in weight.

However she continued to have attacks of pain and tenderness in the right side of abdomen which partly incapacitated her. We now felt that the primary abdominal focus which we had all along considered to be the appendix, could be removed. She consented to another operation.

Third Operation—On Aug. 10, 1911, about a year and a half after her first operation, and thirteen months after her second, we opened up the abdomen the third time. The abdomen presented a very different picture than it had on the previous occasions. The parietal and visceral peritoneum was free from tubercles and adhesions; and excepting a small mass of adhesions involving caecum and a few inches of ileum, the parts appeared entirely normal. There was no free fluid. Adhesions were broken up. Fibrous tissue surrounded the appendix throughout its length in such a way that it was re-

moved with a curette. The appendix was tuberculous throughout caseous in part. No other focus or extension of process could be found in mesenteric glands or elsewhere. The abdomen was closed without drainage. Both tubes and ovaries appeared normal.

Patient left hospital at the end of a week.

Future Course—On September 4, 1911, we began giving her tuberculin again, and continued same for two months. Improvement in weight and strength followed and at the present time, about two years since the last operation, the patient weighs several pounds more than she has ever weighed, and is the picture of health.

In looking back over the treatment of a case like this, it seems that one of the first questions to come to mind is, "Would the patient have recovered without the last surgical interference?" Of course we do not know. We feel, however, that the total removal of the only remaining tuberculous focus, which was easily accomplished, offered to the patient the best chance for recovery.

The concensus of opinion today favors conservative non-surgical treatment of early and very late cases. Such cases that fail to show improvement and in which the abdominal focus is small, well limited and removable in entirety are treated surgically, and with encouraging results.

Tuberculin is undoubtedly a valuable adjunct. It must be very carefully administered and the dosage for each individual determined from time to time.

This case is not reported with the idea of adding anything new, but rather to encourage continuous and persistent treatment in these cases, for we fear that too often they are considered hopeless when much might be accomplished.

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THE PRESENT STATUS OF SALVARSAN IN THE TREATMENT OF SYPHILIS. *

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Sufficient time has now elapsed since the advent of salvarsan to enable us to look back with a critical and analytical mind upon the cases treated with that drug during the past few years and ask ourselves, "Have we gained anything by the discovery and use of salvarsan and, if so, how much?"

The ideas held by the medical profession in general have been thoroughly upset by the recent discoveries in syphilis, namely, the Wassermann test, the discovery of the *treponema pallidum,* salvarsan and the luetin test. All these will not be discussed here except as they have to bear upon salvarsan. Is it at all strange that with the appearance of all these discoveries within a comparatively short time all the old traditions so fondly cherished for generations should be shattered? Re-inoculability has been proved; infection from tertiary lesions is no longer deemed even improbable; and by means of the Wassermann test mothers of syphilitic infants are found always infected, in spite of the absence of external symptoms of the disease.

Salvarsan is now too well known for description but neo-salvarsan is perhaps not so. It differs from salvarsan in being less toxic, easily soluble in cold water, forming a neutral solution and being much better adapted to intramuscular injections. On the other hand it is much less efficacious and for that reason is used less than it would be otherwise.

Oily suspensions of these drugs which were highly recommended by some have fallen into disuse, as absorption was slow, a necrotic area was always formed, necessitating incision in many cases, and they gave as much trouble, or ever more, than aqueous solutions.

Intramuscular or intravenous injections of aqueous solutions (neutral or slightly alkaline) are the methods of choice, neo-salvarsan being the more easily administered on account of ease of preparation and less local toxicity. Without regard to the method employed for preparation and administration of salvarsan or mercury, what advantages have we gained since using salvarsan?

It is hardly fair to draw such comparisons, as in former years we had no Wassermann test to tell us when to continue or discontinue mercurial treatment. Patients were treated for varying periods of time during the appearance of symptoms and then at intervals for three or four years if they would stay under observation that long. Many cases were undoubtedly cured, many became immune to the effect of mercury, while many were seemingly cured but would undoubtedly have shown a positive Wassermann if such could have been made.

The cases that had received mercury for long periods of time and had become immune to it were the cases in which salvarsan was first used and in most cases one or two injections produced a complete cure as evidenced by a persistent negative Wassermann. Since that time salvarsan and neo-salvarsan have been used in cases in all stages of the disease and the results

* Read before the Section on Medicine, 48th Annual Meeting Michigan State Medical Society, Flint, Sept. 4-5, 1913.

as shown by the Wassermann test have varied greatly.

In the majority of cases which had previously shown a positive reaction, this becomes negative within four weeks, depending upon the size of the dose. This is, of course, the ideal way for the drug to act, but if further treatment is not given, either more salvarsan or a course of mercury, the reaction will almost invariably become positive again. Some cases which had previously shown a negative reaction, later showed a positive following the injection of salvarsan. This phenomenon has been explained by some on the ground that the cases either were very early ones or that sufficient antibodies had not been generated previous to the injection and that endotoxins were liberated by the salvarsan.

In other cases salvarsan in repeated doses has been necessary to produce a negative reaction, even a change to mercury sometimes being necessary to cause this result.

From the foregoing it would appear that salvarsan will not always act the same, which statement is also borne out by the clinical manifestations, as in many cases several doses of neo-salvarsan have been required to cause a disappearance of lesions, this being far more marked with neo-salvarsan than with salvarsan. Lier[1], however, thinks neo-salvarsan is indicated in cases where mercury is not well borne, giving best results in primary and tertiary stages, but it gives its best results when used in combination with mercury, especially in metasyphilitic diseases of the nervous system. The choice of drug however, is a matter of individual preference and experience as some users claim results with either drug which others cannot obtain.

EFFECTS OF SALVARSAN

The effects of salvarsan vary directly according to the rate of absorption and elimination. Swift, of the Rockefeller Institute, New York, has recently done some exhaustive work in this line, showing the absorption and elimination rate with neo-salvarsan and salvarsan injected in the various ways. With intravenous injections the drug is thrown into the circulation at once and elimination is completed, principally through the kidneys, in three or four days. This carried out the idea of *"Therapia Sterilisans Magna,"* but since this has proved to be a fallacy, this method of administration does not take into consideration the fact that many *treponemata,* in their own or some transition form, do not come in contact with the drug and hence develop unhindered after its elimination.

Mac Donagh has recently published[2] his researches upon the subject of transition forms of the *treponemata* and his work would seem to explain some of the phases of syphilitic infection which had before been unexplained. He has examined thousands of sections of lymphatic glands, both syphilitic and non-syphilitic, and states that the organism makes a connective tissue cell its host. By budding it gives rise to several bodies which later become differentiated into male and female elements. The connective tissue cell becomes merely a sac, which bursts and frees the contained elements. Some of the elements are male and female which go through a complicated life cycle, while others are set free and at once seek connective tissue cells and start other cycles.

Certain forms take at least two weeks to develop and during the sexual life of the male and female elements, when they are intracellular, they are uninfluenced by salvarsan or mercury. This would explain the relapses following salvarsan or mercurial treatment and would seem to favor the prolonged continuous action of either drug. His work, however, has not yet been confirmed by other investigators.

Intramuscular injections of salvarsan and neo-salvarsan are slowly absorbed, each forming a necrotic area around the fluid injected, but neo-salvarsan is practically entirely absorbed in six weeks while from ten to fourteen per cent. of salvarsan remains after ten weeks. There is as much neo-salvarsan absorbed in the first week as there is in six weeks after salvarsan[3] (Swift). This method then, gives continuous action for six weeks, destroying any *treponemata* that may come in contact with the drug during that time.

Salvarsan is not always indicated, however, as many conditions of the organs preclude its use. Cases have recently been reported in which it would formerly have been contraindicated, but when used with caution had no ill effects. Oppenheim and Sabatie[4] (*LeMonde Medical*) relate a case of an insane woman, 75 years of age, having pulmonary tuberculosis, double cataract, and tertiary syphilis; the infection being at least fifty years old; the eruption of twenty years' duration. Complete recovery within three weeks followed the cautious administration of salvarsan, a result which could not have been obtained so rapidly with any other means.

It was at first stated that salvarsan should not be used in cerebral and spinal conditions, in cases with cardiac, circulatory or renal derangements or any profound systemic disturbance. This can be modified so that the drug can be given in many of these cases in which the lesions are produced by syphilis, beginning cautiously with small doses intramuscularly, or,

1. Wien—KI. Woch. 1913 XXVI. 410.
2. British Journal of Dermatology, January, 1913.
3. Jour. of Experimental Medicine, Jan. 1913. XVII No. 1.
4. LeMonde Medical, August, 1913.

as Ehrlich now advises, giving a preparatory course of mercury when possible. These cases frequently require a drug with great rapidity of action and if *treponemata* can be demonstrated in the spinal fluid, an intravenous injection may be necessary, as Ravaut states that this method is the only one in which arsenic is found in the spinal canal.

Salvarsan would therefore be indicated in all cases requiring rapidity of action or intensive treatment, provided no serious lesion exists which would absolutely preclude its use. Even in senile cases where rapid action is essential it may be used in very small repeated doses with no ill effects. It will probably come to be used in cases of so called para-syphilis even though it was originally recommended not to be used in those cases.

Since the discovery by Noguchi and Moore of the *treponema pallidum* in the brains of paretics, it would seem that the para-syphilitic diseases of the nervous system could more properly be termed strictly syphilitic, or, as has been suggested in *LeMonde Medical*[5], quaternary syphilis. Such being the case salvarsan cautiously used would be more likely to give the required rapidity of action than any other drug, but the cases must be carefully selected.

CONTRA-INDICATIONS

Even with its many advantages salvarsan has some serious drawbacks which always make its use uncertain and somewhat dangerous. The danger of optic atrophy is well known, also the danger of its use with a previously existing nephitis. Wechselmann[6] in a recent article in the Urologic and Cutaneous Review[6] states that a fatality following salvarsan is due to the fact that a nephritis existed previous to the injection and the damaged kidney could not properly excrete the drug.

With intravenous injections there is, of course, more danger than with the intramuscular and more fatalities have resulted, but the physician, as well as the patient, should always be safe-guarded by a competent physical examination of the patient before administering the drug. Rapidity of action and absence of pain are the greatest recommendations for the intravenous injection, but even those are often outweighed by other considerations.

The method of election in administering the drug, the choice of drug, whether neo-salvarsan or salvarsan, are matters for individual experience and selection and must be varied to suit the conditions presented and the patient's sensibilities.

Salvarsan has done more than any other one drug to cure syphilis, shorten the course of the disease and consequently the protracted treatment. With the aid of the Wassermann test to control treatment it should go far to prevent the cerebral and spinal symptoms which have previously proved so rebellious to treatment. There may be cases in which salvarsan will produce little effect, but a judiciously combined treatment of salvarsan and mercury, controlled every two months with a Wassermann test should give the highest percentage of cures.

In Finger's latest work he believes that many of the neuro-recurrences are due to salvarsan and not to syphilis[7]. This is a question which cannot be argued here, but in many cases the risk of causing some secondary nerve disturbance must be taken in order to cure some other phase of the disease. However, he advocates always a combined mercury and salvarsan treatment.

Therapia Sterilisans Magna with salvarsan or any other drug known at present is now a myth, but we should not overlook the fact that in salvarsan and neo-salvarsan Ehrlich has given us our most powerful single agent in the treatment of syphilis.

5. LeMonde Medical, August, 1913.

6. On the Pathogenesis of Salvarsan fatalities. Wilhelm Wechselmann XVII. No. 5, 6 and 7. (Urologic & Cutaneous Review) I. No. 3, July, 1913. The Present Status of the Salvarsan Therapy of Syphilis, p. 251. Wilhelm Wechselmann.

7. This statement is denied by Wechselmann, who claims that neuro recurrences are always due to syphilis alone.

ABSTRACT REPORT THE XVII INTERNATIONAL CONGRESS OF MEDICINE. DERMATOLOGICAL SECTION. *

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The XVII. International Congress held in London August last was without question a most successful meeting both scientifically and socially; the attendance being 7,500 registered, and if to this number the visitors and wives could be added, the number would be increased to more than 10,000 people.

This was a large gathering for any nation to entertain, yet English and London physicians were equal to the occasion and deserve great credit for the masterly way in which they cared for the visiting physicans of all nations and tongues.

The formal opening of the Congress by King George's representative, Prince Arthur, held in the enormous Albert Memorial Hall which seats 10,000 people, was a most impressive and inspiring occasion. The section on Dermatology and Syphilis was presided over by Sir Malcomb Morris, and its meetings and clinics held in St. Thomas Hospital. This hospital is most beautifully situated on the banks of the Thames directly opposite the Parliament

* Read before the Wayne County Medical Society Sept. 29, 1913.

buildings. The attendance in this section, drawn from the register of the section, was over two hundred. To this number of regular registered dermatologists, a hundred more could easily be added who were in more or less constant attendance at our section meetings.

The list of American Dermatologists numbered nineteen with three from Canada.

Among the number of distinguished foreigners who attended the section were: Professors Gaucher, Hallopeau, Ehrlich, Gastou, Blaschko, Peterson, Ciarrochi, Darier, Finger, Gallaway, Graham-Little, Jadassohn, Jamieson, Joseph, Walker, Morris, Sabourand, Sequeira, Unna, Wassermann, Hata, and many others familiar to us as authorities.

Following the President's address was the informal response from the delegates of all the countries represented. The first to be called upon was our delegate, Dr. J. A. Fordyce, who most admirably represented our country in dermatology.

The most valuable feature of our section was the exhibition of over ninety rare cases which had been most carefully selected from that immense clinical material of the City of London, which in reality represents clinical material from all over the world. These cases were shown in six successive demonstrations preceding the section program. They were exhibited, well scattered, in most excellently lighted and ventilated rooms and each case accompanied by a brief typewritten history. A complete typewritten list of the cases exhibited on that day was handed to each member before the clinic opened.

Time would not permit anything but informal discussions of questionable cases, yet these discussions were most instructive, nor will space permit giving the list of diseases presented in this clinic of rare cases, yet I assure you that if one were to live many hundred years, he would not be able to duplicate the material in interest shown at this section. Weeks, months, and years, were needed to collect and arrange this material and words cannot express our gratitude and thanks to the untiring efforts of the Chairman, Dr. Sequeira, and the members of the Clinic Committee for their excellent work.

In connection with the clinic should be mentioned another most interesting feature, and that is the exhibit of photographs, wax models, historic sketches, etc. More than 15,000 individual subjects were shown in this dermatological museum of the Congress.

Upon the official program five general themes were presented for discussion:

The first was that of "Epithelioma of the Skin, Benign and Malignant." The reporters selected to present the subject were Drs. Darier, Fordyce, and Jadassohn. The subject was most ably discussed and it is quite impossible for me to refrain, because of national pride, from commending in the highest terms the address and lanternslide demonstrations by Dr. Fordyce. The exhibition not only covered most completely all forms of epithelioma, but is by far the most excellent collection in existence.

The second general theme was that of "Alopecia Areata and Allied Conditions," presented by Prof. Sabouraud and Prof. Pellizarri. Sabouraud considered the alopecia a non-contagious disease, but is inclined to believe that at least one fourth of the cases show hereditary tendency. He considered Jacquets reflex to apply in only one sided alopecia of small areas, and to be considered as a symptom rather than a disease of nervous origin of varying causes.

The third subject for discussion and by far the most interesting of the selected subjects, was that of "Syphilis, its Dangers to the Community and the Question of State Control." This subject was discussed in a joint meeting with the section on Forensic Medicine. The discussion of this subject, because of its general public interest, attracted a great deal of attention and space in the lay press, and just here I wish to commend the daily press publications of the transactions of the Congress and especially the London Times. Special medical reporters were in attendance at all sections and their work is deserving of the highest praise for its accuracy and high medical character. At the conclusion of this joint meeting the following resolutions were passed:

"That, sensible of the ravages wrought by syphilis in the health of the community and deploring the inadequacy of existing facilities for checking its dissemination, the International Medical Congress calls upon the Governments of all of the countries here represented:

1. To institute a system of confidential notification of the disease to a sanitary authority, wherever such notification does not already exist.

2. To make systematic provision for the diagnosis and treatment of all cases of syphilis not otherwise provided for.

The first speaker upon the subject was Prof. Blaschko, who stated that we must first of all recognize that prostitutes cannot be rendered entirely free from venereal diseases. It is our duty to try and reach the danger class, namely the young clandestine prostitute. He maintained that the regulation by law of prostitution had not lessened the amount of syphilis and most strongly commended early and vigorous combined treatment of salvarsan and mercury.

Prof. Finger advocates the controlling of

prostitution by the health board instead of the police, strongly recommending compulsory measures in the care and treatment of every young, weakminded or degenerate person. He recommended the following resolution:

1. Instruction of healthy persons, especially the young, concerning the meaning of sexual life and venereal disease, as well as individual prophylaxis.
2. Removal of all obstacles from moral or other standpoints which interfere with individual prophylaxis.
3. Instruction of diseased persons by official pamphlets given them by physicians.
4. Instruction of the wet nurse concerning venereal disease.
5. Regulation of bureau of wet nurses. Laws for the protection of wet nurses and nursing infants; examination of wet nurse and child by Wassermann test; erection of lying-in hospitals; encouragement of mothers to nurse.
6. Reform in sanitary conditions of roomers.
7. Improvement in treatment. Special wards in hospitals. Pay beds for the middle classes. Ambulatory treatment at suitable hours. Free dispensing of drugs. Cost of treatment to be borne by the state.
8. Passage of a law making the wilful or careless communication of venereal disease a criminal act.
9. Introduction of restricted compulsory treatment.
10. Forbidding treatment by venereal quacks; forbidding the advertising of treatment by mail and the sale of medicine for self treatment.

At the conclusion of this meeting Professor Gaucher and Gougerot urged the adoption of the following measures:

1. Individual education of young men and young girls, explaining the dangers of venereal disease, promiscuous kissing, etc.
2. Education of the heads of families in that mothers should instruct the young girl and that parents should demand a medical certificate from the candidate for marriage. Reform of medical secrets, allowing the head of the family to be informed when one of his children, who is under age, suffers from a contagious disease.
3. Education of married people, so that the husband, who is a victim of a venereal disease, shall cease marital relations at the first appearance of a suspicious lesion; that the wife will receive preventive treatment during pregnancy, and the child be periodically examined and not given to a wet nurse.
4. Stricter observation and especially protection of the wet nurse, by compelling a medical examination of the parents of the infant as well as the infant itself. By periodical examination of the latter as well as of the wet nurse.
5. Medical examination of children's nurses, especially with regard to venereal diseases.
6. Police regulation for sterilization of napkins, knives and forks in restaurants and hygienic measures in barber shops.
7. Regulation of dangerous industries, such as glass-blowing.
8. Careful sterilization of medical instruments, the use of wooden tongue depressors, etc.
9. Hospital reform, including admission upon demand of venereal patients, subdivisions of medical wards, allowing small portions to be set aside for venereal patients, without having the name of the hospital or special ward serve as a reproach to its patients. Abandonment of special hospitals and even special venereal services except for purposes of teaching. Sunday and evening clinics, allowing patients to be treated without interrupting work, and free medicine to poor patients.
10. Obligatory aid to be given by benefit societies to members who are subjects of venereal disease.
11. Obligatory instruction and a special examination in venereal diseases to students of medicine.
12. Suppression of medical quacks.
13. Treatment of syphilitic prostitutes. Suppression of trapping, procuring, houses of prostitution and white-slave traffic. Penal offense for transmitting syphilis.
14. Protection and re-education of prostitutes who are under age.
15. Continuing the present work of aiding older prostitutes.
16. Prevention and suppression of prostitution, discovering the child's father by giving the outraged girl the rights of a legitimate wife and by imprisonment or fine for a man deserting his mistress.
17. Protection of the young girl by education, by providing places of refuge for girls out of work. Protection of young girls seeking employment and away from home.
18. Moral education. Respect for young girls. Severe punishment for adultery. Marriage at an earlier age, which would render prostitution useless.

On Monday morning the section on Dermatology convened in joint meeting with the section on Naval and Military Hygiene to discuss the fourth general topic, that of, "The Treatment of Syphilis with Salvarsan and Allied Substances."

This meeting was by far the most enthusiastic and important to the section members. The pre-eminent one to present this subject was Professor Ehrlich. As he arose to address this large joint meeting the lengthy applause which

greeted him was a more thrilling expression of admiration than has been given to any medical man that I have had the pleasure to witness, when we consider the audience who contributed this expression.

He addressed the meeting in a most distinct and eloquent German which was exceedingly appreciated by the foreign listeners. He stated that he did not wish to discuss salvarsan from a clinical standpoint but wished to confine himself in his remarks to the action of the drug upon the organism, its action upon tissues of the body and the technic of administration. He conceded that the action of the drug upon the spirochetae in the human body was an indirect one as the organisms were not killed by salvarsan in vitro. He considered the febrile reactions following its administration to be due in most instances to faulty technic and to the liberation of toxins by rapid destruction of the spirochetae. This latter action he considered could be modified by the preliminary use of mercury. He maintained that the mortality was less than that due to chloroform, and that the percentage could be further reduced by more careful consideration of some contra-indication. He maintained as contra-indications renal insufficiency, Addison's disease, and status lymphaticus.

Much disappointment befell the section when it was announced that Prof. Neisser could not be present and present his most valuable contribution to the subject. Short abstracts from his communication are worthy of mention.

He strongly advocates the combined salvarsan and mercury treatment because of the clinical and serological effectiveness and states that they are less dangerous combined than given singly. The action of salvarsan in his opinion was not of itself neurotropic. At the present time, based upon most extensive clinical experience, he remains a most ardent adherent to salvarsan in the treatment of syphilis and recommends that every case must be treated as an individual infection.

Following Prof Ehrlich was a joint paper by Lieutenant-Colonel T. W. Grovel and Major L. W. Harrison of the Royal Army Medical Corps. They gave some very valuable, carefully compiled statistics of the results of treatment with salvarsan alone, neosalvarsan alone, salvarsan, neosalvarsan combined. Also combined salvarsan and mercury, also combined neosalvarsan and mercury, groups of one hundred cases treated by each method. The best clinical and serological results which were followed by a small percentage of recurrences over a longer period of time were those of the administration of two doses of salvarsan three weeks apart to be followed by nine intramuscular injections of mercury, covering a period of nine or ten weeks. They estimated that salvarsan is now an annual saving of 70,000 to 80,000 hospital days. The statistics so collected from the medical corps of the regular armies of nations are without question the most valuable statistics because of the absolute control of the infected patient over a long period of time.

Further discussion was given by Prof. Wassermann, Hallopeu, Fordyce, Levy-Bing, Woods Hutchinson, and others.

The last theme for general discussion was that of "Vaccine Treatment of Skin Diseases." "The Present Status of Vaccine Therapy in Skin Diseases" was most thoroughly covered by Prof. Gilchrist. He spoke of the wholesale indiscriminate use of vaccines in his own country. He commended the autogenous vaccines and spoke most disparagingly of the mixed stock vaccines that are placed upon the market by different pharmaceutical firms.

He was followed by Dr. Whitefield of London who summed up his extensive experience in the following conclusions:

In certain acute infections of the skin, as erysipelas, appropriate vaccine treatment was the only direct curative measure. In furunculosis, vaccines would alter the course of the disease and prevent the occurrence of new lesions. Certain diseases, such as sycosis, tending to become chronic from the outset, might be cured at first by vaccine therapy, but were exceedingly refractory if long standing. In tuberculosis of the skin, the method was of some value in clearing up indolent lesions, such as those of Bazin's disease.

The other portion of the scientific program consisted of twenty-nine independent papers which took up some phase of the subjects which were selected for general discussion. It was impossible for one to hear all of these papers as the number compelled them to be given in two meeting places conducted at the same time.

After the conclusion of the scientific program a short executive meeting was called by President Morris, around whom the Vice-Presidents and Secretaries of the Section were seated.

The closing remarks of the President, the expression of commendation and thanks from the foreign delegates to the officers of the section, and the short response from the Vice-President and Secretary, was the most impressive expression of international bonds it has ever been my pleasure to witness. Impressive because the time had come for our parting, and with our "good-bys," *"au revoir," "auf wieder sehen,"* the great International feast passed into history.

In conclusion one could not be excused in reporting any phase of the Congress without mentioning the most extensive and varied forms of entertainment.

The afternoons and evenings were filled with

triple the number of functions one could possibly attend; this number allowing one to select the one or two he would most enjoy.

The Congress *Soiree* at National History Museum; the entertainment by the City of London at Guildhall; Windsor-garden party given by King George; *Soiree* given by Lord and Lady Strathcona were the functions of general invitation.

Following the class A functions just mentioned were the separate section entertainment, consisting of garden parties at the numerous hospitals where sections were held; evening receptions and dinners.

The section on Dermatology and Syphilis was most royally entertained. Many series of dinners were given by the London dermatologists and while the members were entertained at dinner, the wives were being entertained at afternoon tea, garden parties, private galleries and evening dinners by the wives of the London dermatologists.

The Students College Club of St. Thomas' Hospital was thrown open to the section members for lunch and refreshments.

The section garden party held at St. Thomas on the lawn and esplanade on the banks of the Thames with the Parliament buildings as a background, was a most impressive and enjoyable fete, as was also the reception given by Sir Malcolm and Lady Morris at Prince's restaurant.

REPORT ON THE MEDICAL SECTION OF THE INTERNATIONAL CONGRESS OF MEDICINE AT LONDON *

E. W. Haass, M.D.,
DETROIT, MICH.

In addition to the general meetings, the program of the 17th International Congress of Medicine showed a division of work into twenty-three sections, a number with several subsections, ranging from anatomy to the history of medicine. In the Medical Section, the mornings were given up to the presentation of reports on selected topics followed by the discussion of the same; the afternoons to the presentation of the patients illustrative of the subject matter of the morning, followed by the usual short papers read at medical meetings. Sir Wm. Osler presided and the meetings were held in the auditorium of the Royal Society of Medicine, Cavendish Square.

The Society possesses a magnificent building containing many large and small assembly rooms, library, rooms where luncheons can be served; is equipped with an electric elevator and is finely furnished.

The first symposium concerned itself with, "The Clinical Aspects of Haemolysis," with papers from Banti, Widal and Hunter, and many enrolled in the discussion. Some of the points brought out touched upon the probability of the spleen acting as an haemolytic organ, incited thereto by toxins, and brought up the question of splenectomy in progressive pernicious anemia. Hunter tried to show the seasonal incidence of grave anemias, being worse in the autumn months with remissions in the spring. He claims that ninety per cent. of all severe anemias are due to sepsis, and curable if the cause can only be found and removed.

The next morning was given over to the topic: "The Correlation of Organs of Internal Secretion and Their Disturbances" at a joint meeting with the section on Physiology, with Prof. Schafer presiding. It was opened by Gley of Paris, and followed by Biedl of Vienna, Koranyi of Buda-Pesth, and Kraus of Berlin, with Cushing of Boston to open the discussion. It was partly a critical review of the work of the past with the presentation of some new work as follows:

The chemical nature of most hormones is as yet unknown. Hence exact proof of increased or decreased production cannot be shown, rather changes in the morphology of the organs themselves. In other words the proof of an increased or decreased hormone production in the sense of a hyper- or a hyposecretion cannot be demonstrated; rather the changes in the organs themselves which can be interpreted as an evidence of increased or lessened activity. The proof of hormone influence, that is, the variation of the secretion of one organ as influenced by the secretion of another has also as yet not been furnished. Yet the newer researches bring out a probable relationship of the hypophysis and the testes (the *pars intermedia* of the hypophysis), a relationship of the testes and the adrenals, and an adrenal influence on puberty. And we hear the statement that Graves' or Basedow's disease possibly at all times but surely for the condition at the height of the disease is a pluri-glandular disease. Hence the operation for the removal of a portion of the thyroid gland can have but a relative value. That the term hyperthyroidism will give way to that of dysthyroidism in the near future, and that the water-borne etiology of goitre will in all probability be succeeded by the contact theory are other statements. Further, that the para-thyroids and thyroids probably are supportive rather than antagonistic to one another.

Cushing strongly brought out the influence of heredity;—an acromegalic mother with a child of six, which menstruated at the age of

* Read before the Wayne County Medical Society, Sept. 29, 1913.

two and acquired secondary sex characteristics at three. Likewise, he touched upon the relationship of polyuria to hypophyseal disturbance, pointing to the frequency with which diabetes insipidus was noted as accompanying basilar lues, optic atrophy, hemianopsia. The problem of sleeplessness and hibernation in their relationship to the hypophysis was enlarged upon. Feeding the gland will bring an animal out of the state of somnolence; an operation for removal of part of the gland is often followed by drowsiness.

Next attention was given "The Pathology of Heart-Failure," with Vacqez, Wenckebach and Hering presenting papers and many taking part in the discussion. One demands we must distinguish the failures due to weakness of stimulus production and disturbance of conductivity from that due to weakness of the heart muscle. Another claims the problem of the future is to estimate the direct power and the reserve force of the heart muscle. A third foresees a chemical pathology with the influence of the proteins on the heart muscle the chief factor. Another finds the coronary circulation the deciding factor. We are also told that the earliest, entirely subjective, symptoms of heart failure are more important than the later objective findings. Many demonstrations were made, for example of inflammatory changes in the nodes, of the influence of venesection on the height of the electro-cardiogram, etc.

Monday was given to the subject of Diabetes with Dock and von Noorden as the reporters. Dock pleaded for a selective treatment, for a greater individualization of cases, as offering the greatest hope of improvement in the future. Von Noorden dwelt upon the pancreas-chromofine system control over sugar-metabolism, the thyroid, parathyroids, hypophysis, sympathetic center being given place. He advised a "Schonungs" therapy—resting the organs involved, as in heart disease. The sugar loss is relatively of little importance, the hyperglycaemia and the wearing out of the organs involved in the metabolism of carbohydrates being the factors to be feared.

Tuesday brought forth "the Differentiations of Diseases Included under Chronic Arthritis," with Barker and Friedrich Mueller as reporters. Barker divides the arthritides in five groups:

(1) Gout.

(2) Neuropathic arthropathies (Tabes, Syringomyelia).

(3) Primary hypertrophic osteoarthropathy.

(4) Secondary arthropathies following infectious diseases.

(5) Chronic progressive polyarthritis (rheumatoid arthritis), which, however, may belong to type four.

Mueller distinguishes but two types: arthritis and arthropathy; the former for the inflammatory, the latter for the degenerative forms. He wishes the terms rheumatic and rheumatoid abandoned as applied to the chronic forms of joint disturbance. The infection of acute diseases may linger for years in the joints and bones, the weakly virulent organisms appearing to have a special affinity for the joints. He lays stress upon the influence of old injuries, to injuries from overuse (the presenile type), to static influences, for example, injury to the knee from the weight of the body, especially in the monarticular type. He points to the serum disease of joints and asks for a study of the phenomena of anaphylaxis and protein toxins as related to joint disturbances; to joint trouble associated with thyroid disturbance; at the time of the menopause; in connection with tumors in the mediastinum; and associated with skin disorders, as psoriasis, and points out a relationship with the organs of internal secretion.

A great many short papers more or less interesting were read but the limit of time set upon this report forbids mention of any.

THE XVII INTERNATIONAL MEDICAL CONGRESS, LONDON, AUG. 6TH TO 12TH, 1913. UROLOGICAL SECTION *

FREDK. W. ROBBINS, M.D.
DETROIT, MICH.

It is difficult, in the space alloted, to report at all adequately the many matters of interest connected with the great medical congress in its splendid setting. One can hardly conceive of a more perfect place for holding general meetings than that splendid, ten thousand capacity, Albert Memorial Hall, at the gates of Hyde Park. On its platform sat, magnificent in his robes of honor, the President, Sir Thomas Barlow. Around him and in front were many robed men of note, lending color and dignity to the general meetings.

Prince Arthur of Connaught, representing the King and Lord Gray, in plain morning dress, welcomed the assembled representatives from all parts of the world in a manner that demonstrated to all the friendly and sympathetic interest of the leaders of the English Empire in the labors and aspirations of the medical profession. At this first general meeting all gathered. At its close the individual members of the congress scattered, and for the next two weeks no two persons saw things alike; one going here, one there as interest or accident determined. The writer was particularly interested in a few of the many social functions, in the London Hospitals and the

* Read before the Wayne County Medical Society, Sept. 29, 1913.

work done there, and in the section of Urology.

This section was one of the smaller of the twenty-three sections in which scientific work was reported, and Prof. E. Hurry Fenwick was its able presiding officer.

The three important subjects reported and discussed were:

Diagnosis and Treatment of Early Malignant Disease of the Prostate.

Diagnosis and Treatment of Early Renal and Vesical Tuberculosis.

Diagnosis and Treatment of Haemic Infections of the Urinary Tract.

Dr. Hugh Young reported on the first and Dr. George E. Brewer of New York on the last subject. Very little new was brought out, and to one not conversant with foreign languages much that might have been of interest was lost.

In the combined sections of Urology and Dermatology, which met to hear Ehrlich, Wassermann, Hata, and others, in the discussion on "Syphilis and Its Treatment with Salvarsan" enthusiasm unrestrained was the greeting of Prof. Paul Ehrlich as it was on the 8th of August when he rose to deliver the address in Pathology at the general session.

Certainly beyond the mere necessities of life, no one need desire a greater honor than that conferred upon Prof. Ehrlich by the medical profession of the world in London.

As to the hospitals of London, one is surprised to learn that all are strictly charitable institutions. Some are beautiful modern buildings—others were built by some of the Roman Catholic orders before the time of the protestant reformation, but now all are governed by trustees who are continually asking contributions with which to carry on the work. There are no private rooms, no pay patients, and considerable care seems to be exercised to prevent those able to pay from entering the hospital wards. The two chief reasons for the existence of a hospital seem to be care of the sick and teaching medical students. There are no hospitals for the well to do. Many more patients are operated on at their homes than is the case with us. If this is not feasible patients are taken to nurses' homes. Of these institutions we know nothing. Entire streets may be given up to nurses' homes. From the outside one would not differentiate them from ordinary residences. The nurse or nurses in the homes care for their patients, but in some instances one or more surgeons control a home, in which is an operating room and hired nurses or sisters as they are often called. In the surgical homes there are no resident physicians and, as compared with the beautiful well equipped operating rooms of many of the hospitals, none worthy the name. It may be very well said that only the poor receive hospital treatment in London and they get the best.

It seems not to be difficult for a few men interested in a certain class of cases to get a charter for a hospital in which such cases may be treated, and they appeal successfully to the charitable public for means with which to support it. The renowned St. Peters Hospital, dedicated to the surgical treatment of stone and other urinary diseases, is a shining example of such special hospital.

Herr. Freyer, Edwards, Walker and Joly operated before an interested group on several successive days. Prostatectomies, supra-pubic of course, bladder tumors, stricture of urethra, and stone in the bladder were the cases here seen. Otis dilating urethrotome is not used; instead, the Maissonneuve which cuts from before backward.

Mr. Fryer did a lithopaxy employing Bigelow's instruments with which we are perfectly familiar, and it was very interesting to watch Russians and French, who evidently had never seen them used. Litholapaxy is without doubt a much more desirable operation than suprapubic lithotomy in suitable cases, and it seemed strange that so many prominent men had not appreciated the fact.

Mr. Kidd, at the London hospital, was very kind to visitors. His kidney and ureteral work was of special interest, particularly his method of approach to stone in the lower end of the ureter through a short abdominal incision. We shall hear a good deal of Mr. Kidd in the future, and I would suggest that those surgically inclined, when on a visit to London, make an effort to meet him and see his work.

We wish to express our appreciation of the English as hosts. The social functions were many. Each had its own point of special interest. Lord Strathcona, over ninety years of age, who with his gracious wife greeted several thousand visiting physicians who responded to their invitation to a reception given in the Garden, will long be remembered. Nor will a Sunday afternoon at Clevedon, one of the most beautiful spots on the Thames, be soon forgotten.

The four hundred guests were met at the special train and driven back four miles to and through the estate where Mr. Astor, formerly of New York and now M. P., received us with a charming friendliness. His artistic house was thrown open from top to bottom for the pleasure of the guests. The weather was perfect, and for two hours we enjoyed the gardens, the terrace upon which music and refreshments were dispensed, and also the river, as in groups we entered launches and sailed down the river and back again, catching lovely glimpses of the palace from time to time between the trees.

The Natural History Museum was well fitted

for the first great social event of the congress, the President's Reception. So spacious that in the crowd one did not feel crowded, and so filled with interesting things that even when separated from friends one could not be lonely.

Windsor, where the King's Garden Party was given, Oxford, Cambridge, Bath, were the objective points towards which several pilgrimages were made.

In closing I wish to say a few words about the most beautiful reception given by the Masters and Wardens of the Grocers Company at Grocers Hall. It does not sound so much does it? When we surgeons were barbers in 1457 this company was organized, and I take it that the Grocers Guild may be taken as a type of the many guilds in London. Presumably their origin may be accurately judged from the name, but from that name one cannot conceive their present status in the social life of the great city. They are to-day the most exclusive of clubs and very wealthy. Imagine a club formed nearly five hundred years ago to which had been left real estate. As our friend, Dr. F. W. Mann, called to our attention the fact that London is the only city of any note that has never been in state of siege; whose treasuries have never been dissipated by the stress of war; our eyes became opened and we dimly appreciated why, for one good reason, London abounds in treasure. Their guild houses are treasure houses, dignified in their grand plainness without, rich in their elegant, restful woodwork and furnishings within. Instead of bronze on a table may rest an artistic group three feet long by two high of solid silver, or on the mantle solid gold plates, tea sets, etc., etc. Here was elegance not to be wondered at but to be enjoyed.

Supper was announced about ten P.M., and we marched to the supper room with great dignity, and there found one of the most perfectly appointed suppers it has been my pleasure to enjoy. Each table accommodated four guests. The viands looked too good to be destroyed by knife and fork, but the champaigns not too good to drink. To enjoy such a room, to enjoy the attendance of such trained servants, to appreciate the rich but not oppressive elegance of all the surroundings, to think of such organization keeping intact the increment of hundreds of years, was to emphasize the fact that we were not in America but enjoying the hospitality of our ancestors, who, when they established this club, did not know that the new world existed.

THE BEST WAY FOR DOCTORS TO SAVE MONEY.

Every man who has ever engaged in the practice of medicine understands why doctors do not get rich. The writer thoroughly appreciates, as do all my readers, the multitude of good reasons why. But the Editor has never been able to understand why the majority of doctors remain *poor;* absolutely poor. There is a wide stretch between being poor, having a competency, and getting rich. We cannot tell any one how to get rich, but we think we can tell all of you (at least the younger men) how they may certainly and surely amass a competency for their old age. The reason why the majority of doctors remain poor is because they *do not know how to save money.* We are not now going to warn you against foolish "investments"; we are merely going to tell you how, without failure, you can put enough aside to make your old age comfortable.

You have all heard of progressive compound interest, but have many of the family tested it out over any considerable portions of their lives? Do you know that $1 deposited in a savings bank paying 4% interest will amount to $2.19 in twenty years. That is simple interest, and is very slow work. But do you know that if you deposit $1 *every year,* the value at the end of twenty years will be not $2.19, but $30.97? Any doctor at all can save $1 each and every week. Put that in a bank every week for twenty years and you will have $1,612. Very few doctors but could easily save $5 every week; good; put that in a bank every week for twenty years and you will have more than $8,000. Note that the annual interest on this amount is $320.

Consider that the man who deposits $5 every week in a savings bank, can, after twenty years, *draw out $6 every week, and still leave his family at his death all the money he ever deposited and more than half as much more.* There is no trick of legerdemain in this; it is no dream. Cold facts count.

This is, we think, the best way to save money, especially for doctors. Doctors are proverbially "easy" with their money. That is, they generally have a *little* money in their pockets at all times, and are very prone to spend a *little* of that money for something not absolutely essential to either their comfort or welfare. The *"little"* escapes, where, had it been held for that weekly deposit, through the course of time, competency instead of poverty would have resulted.

Still more astonishing facts can be elicited along these same lines. If, instead of discontinuing the deposits at the end of twenty years, they are continued ten years longer, *every dollar a week will have become* $5.83, and the $52 a year will have become over $3,000. For every dollar which has been deposited under this plan, *$2 can be drawn out every week,* and the original sum, like the oil in the jar of Arabian Nights tales, will remain unlessened.

It takes time to accumulate money in this way, of course, but it is certain. There is nothing dazzling about it; no secret; no mystery; no allurement, such as is held out to you by vivid literature issued by the promoter. It requires, possibly, a little self-denial each week; and some industry and perseverance, of course; that is all. It *pays better,* in the end, that any gold mine, copper mine, banana scheme, or far beyond the horizon scheme to make you wealthy "over night." This is why we say it is *the best way to save money.*

—*The Medical World.*

DO NOT FAIL TO ATTEND THE NEXT MEETING OF YOUR COUNTY SOCIETY.

Transactions of the Clinical Society of the University of Michigan

Stated Meeting, October 1, 1913

The President, R. BISHOP CANFIELD, M.D., in the Chair

Reported by REUBEN PETERSON, M.D., Secretary

Reading of Papers

ANNUAL REPORT OF THE SECRETARY-TREASURER FOR THE YEAR 1912-1913.

REUBEN PETERSON, M.D., SECRETARY.

It seems fitting that your Secretary's report should be of a somewhat more formal character this year than has formerly been the custom. For not only does the report cover the tenth year of the Society, since it was founded in 1902 and 1903, but as will be shown, the committee appointed at the last meeting with power to act, has planned a new departure for the Society so far as its transactions are concerned.

Ten years can hardly be said to be a long existence as medical societies go, but this period in the life history of this Society has seen so many changes in the Hospital, with which the Society is so intimately associated, as to make the decade memorable. Like many another medical society, it has had its ups and downs. During the first few years of its existence, at times it languished and seemed about to die. That it did not perish was in part due to the untiring efforts of some of its founders and friends, but principally, I believe, because there has been a distinct need for such a society in our midst. Otherwise it would have gone out of existence long ago.

When Dr. George Dock and your Secretary, planned the new society in 1902, we realized that there were enough regulation medical societies in this community. These societies were well attended, and were doing good work. The new society was to be along different lines, for its underlying idea was the utilization and demonstration of the rich clinical material at the disposal of the members of the University of Michigan Clinical Staff. Set papers were to be avoided unless they had to deal with clinical problems. On the contrary, the members of the various departments of the Hospital, were to be given an opportunity of showing at the meetings of the Society, patients with unusual diseases or complications or where it was impossible to show the patients themselves, to give case reports which were to be followed by comments, deductions and general discussion.

It may be said that this idea, upon which the Society was founded, has been kept constantly in mind throughout the past ten years. Long winded, tiresome, although possibly exceedingly scientific papers, have been conspicuous for their absence. As a regular attendant upon the meetings of the Society for the past ten years, I can bear testimony to the great benefit I personally have derived from the demonstration of cases quite remote from my own field of work, and I feel confident that my own experience coincides with that of other members of the Society.

But apart from what may be learned from the reports of cases, and the demonstration of patients, the founders of this Society had in mind the opportunities such a society would afford the younger men of the Hospital Staff of gaining experience in medical writing, speaking and discussion. There are tricks in all trades, and the trick of clear expression on medical subjects is not born with a man, but must be acquired. With this end in view the heads of the Hospital departments have constantly urged their assistants to make the most of these advantages.

Four years ago the Society, through the aid of the Regents of the University, was able to engage a stenographer, so that the discussions of each meeting might be reported in full. The papers and discussions were published in the *Physician and Surgeon,* and many reprints sent to the physicians of the state and medical alumni. In addition, two hundred and fifty reprints of each meeting were set aside and at the end of the year bound into volumes, which were distributed among the members of the Society, medical libraries throughout the world, and prominent medical alumni. These reprints and volumes have been the means of placing in medical literature the records of many valuable and interesting cases, which

otherwise would have been lost. These volumes have added to the fame of our Hospital and Medical School.

The fourth volume of these transactions is now in press, and will appear shortly. With its publication will cease, for the time being at least, the Society's official connection with the *Physician and Surgeon,* in which journal has been published most of the papers and discussions of the Society for the past ten years. To Dr. John William Keating, the editor of this publication, and formerly secretary of this Society, the latter owes a great deal, for he has always been its staunch friend. But your committee to whom you referred, at the last meeting, the matter of the Society's transactions, did not feel justified in not accepting the most liberal offer of another journal, especially as the *Physician and Surgeon* did not see its way clear to make any bid for the transactions for the coming year. Your committee, therefore, has selected the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, as the official organ of the Society. This assures the reports of the meetings being made available to the twenty-four hundred of the JOURNAL'S subscribers each month. At the completion of the Society's year in July or August, two hundred and fifty copies of Volume V, will be bound and distributed as in the past.

It seems fitting that the transactions of the Clinical Society of the State University, should appear in the organ of the State Medical Society, since as citizens and physicans of the state, the members of the State Medical Society ought to be able to keep track of what is being turned out by the men in charge of the Hospital connected with their State University, and they should have easy access to just the kind of material which has appeared, and I hope will continue to appear, in our transactions, material helpful to the practitioner, for it is a record of the difficult and unnsual cases, which the medical profession has referred to the Hospital.

The members of this Society realize that they must not stand aloof from the members of our great State Medical Society. Anything which will place us in closer touch with the medical profession of the State, will surely work to our mutual advantage, and this Society can be the means of making such bonds closer.

In closing, let me say that the future of this Society depends upon the individual efforts of each one of you. Nothing can be accomplished without hard work. It is oftentimes a hard and disagreeable task to attend a medical society meeting when one is mentally and physically exhausted by a long day's work. Yet we have chosen a profession where such days come all too frequently, but we must find time for the kind of work this Society stands for, else we fall to the level of those doing a vast amount of practical work with no written record of all that has been done and seen which would be helpful to others.

Therefore I bespeak your co-operation to make the coming year of this Society the most successful in its existence.

REPORT OF A CASE OF MULTIPLE INTRAUTERINE FRACTURES *

D. MURRAY COWIE, M.D.
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UNIVERSITY OF MICHIGAN.

(From the Pediatric Clinic, University Hospital, Ann Arbor, Michigan.)

The case I wish to report is as follows:

William D., age three weeks, entered the Pediatric clinic of the University Hospital, August 14, 1913 because of a congenital deformity of legs, hands and feet.

FAMILY HISTORY—There have been no deformities on either side of the family. The mother is twenty-eight years old, the father twenty-nine. One brother is living, six years old, and healthy. The mother has had no miscarriages.

Fig. 1. Photograph showing natural position of infant

ANTE-PARTEM HISTORY—When four months pregnant the mother slipped and fell, striking the left side of abdomen. She feared she would

* Read before the Clinical Society of the University of Michigan, Oct. 1, 1913.

abort and remained in bed after the fall, although she had no abdominal pain. The mother is a large woman, weighing 185 pounds. One month later (5th month) she fell down two steps. She caught the railing and in so doing

Fig. 2. Showing fracture of right humerus

wrenched her side. She was frightened several times during her pregnancy.

BIRTH HISTORY—The labor was full term. Pains were first felt at 5 A.M. They did not become marked until 6 P.M. At 10 P.M. the pains became severe, and at 10:30 P.M. the child was born, no instruments being required. The infant was deformed at birth, as shown in the illustrations. Resuscitation had to be resorted to.

PAST HISTORY—The infant was unable to nurse the breast, but has gained in weight since it was put upon the bottle. Birth weight not known, present weight 5 pounds 8 ounces. The bowels have been constipated, requiring oil. There have been no gastric symptoms. The skin has always been clear and free from eruptions, as has also the mouth and anus.

PRESENT CONDITION—The patient prefers to lie on the right side with the head thrown back against the spine. The head is flexed with difficulty, circumference 14 inches (normal 14½ inches). The anterior fontanelle is very small, 2cm. in diameter. The head is fairly well shaped. Ears show no stigmata of degeneration. The left leg is drawn up and the right is partially extended. The left upper extremity is constantly held in the position shown in the photograph. (Fig. 1.) The right, while not under the patient's control, is found in different positions. Both feet are clubbed, the left more than the right. There is a marked thickening over the upper third of each femur, giving the appearance of a fracture. There is no crepitus and the masses are hard. There are marked dimples of the large joints, giving the appearance of scars. (See knee and thigh, Fig. 1.) The hands are perfectly flat, especially the left, which gives the appearance of a hand cut out of card-board. The thenar and hypothenar eminences are absent. The fingers of the left hand are somewhat spindle shaped and curve inward. The hand is broad, 3.5 cm. as compared with the right 2.8 cm. The arms and left leg cannot be extended. There is a peculiar clear smooth redness of the skin of the right hand and fore-arm. The pupillary reflexes are normal. There is no nystagmus. The tendon reflexes cannot be elicited. The testicles are not felt in the scrotum. The prepuce is adherent. The skin and mucous membranes are negative. The nasopharnyx is shallow.

Examination of the lungs and heart is nega-

Fig. 3. Right humerus at another angle, showing repair

tive. The abdomen is difficult to examine because of the head being thrown backwards, making it tense. There is bulging in the flanks as shown in the photograph. This is soft and is due to the position.

RADIOGRAPHIC EXAMINATION shows a fracture of the left femur, right femur and right humerus. (Figs. 2 to 5) All of the fractures show advanced repair.

Examination of blood, urine and stool is negative.

True intranterine fractures are rare. In a search through the literature Dr. Richard Smith succeeded in finding forty-three cases, these with his own case making a total of forty-four. In all of these cases a history of injury was obtained, the

most common being a fall or a blow on the abdomen. Less frequent causes in this series were bullet and gunshot wounds, and other piercing wounds of the abdomen. Five of the cases were multiple fractures.

In many of the recorded cases the lightness of the injury, apparently responsible for the fracture, is of great interest. It suggests some important predisposing cause. In some, the accident occurred before quickening. It seems hardly probable that a fall unless very severe would produce a fracture in utero at this time. It is well known, however, as we have had illustrated by a case in the children's clinic in a boy of nine years, that in *osteogenesis imperfecta* a fracture may occur spontaneously by the exertion of no greater force than that required to change the dressings, or through some sudden movement of the patient. In my case the first accident occurred before quickening, the second, of slighter degree, at about the time of quickening.

Of the three predisposing causes, osteogenesis imperfecta, rickets and lues, the former is probably the most important. From a study of the bone structure in this case I feel safe in making the statement that it belongs in this group. Some cases of intrauterine fracture have been mistaken for achondroplasia. The two conditions are entirely different, clinically and pathologically. Such a mistake could hardly be made in this case even without a radiograph for it is easy to see that the bones have grown in length, in other words, the cartilage is evidently proliferating normally. In osteogenesis imperfecta there is a faulty bone metabolism, the calcification is imperfect, and the disease is confined to the shaft of the bone.

Fig. 4. Fracture of left femur

Fig. 5. Fracture of right femur

The cartilage is normal in shape and size. The bones are always brittle. Some authors believe there is such a thing as fetal rickets. There is a great difference of opinion upon this point. It it not at all improbable that many of the cases regarded as fetal rickets are cases of achondroplasia, a condition which is not so likely to predispose to fracture.

I am sorry Doctor Camp is not here to discuss the question of paralysis in this case. There is a paralysis of both upper extremities and it seems to be peripheral. I believe it may be accounted for by an injury affecting the nerve trunks. The paralysis is more marked on the right than on the left side. The early closure of the fontanel and the position of the head argues however in favor of central involvement.

DISCUSSION

DR. REUBEN PETERSON: I have read carefully Dr. Smith's most interesting and valuable paper upon the subject under discussion. Probably in this case the injury to the mother had nothing to do with the fractures since the fall was about the fourth month of gestation However, fracture is possible even this early as shown by Smith in one case. As a rule, the fetus is very well protected from external violence by the amniotic fluid and the abdominal walls which contract quickly under the influence of trauma. With flabby walled women, especially if the child be carried low, it would be possible for such fetal fractures to occur. It is well for practitioners to bear in mind the possibility of intrauterine fracture, so as to guard against a law-suit when the child is born with a deformity, since the X-ray would soon establish the correct diagnosis

DR. CYRENUS G. DARLING: I was particularly interested in one point in the case reported by Dr. Smith The intrauterine fracture had united but with a resulting deformity. On the twentieth day after birth the child was operated upon and the ends of the bones placed in position. Still, the X-ray showed a deformity and a second operation became necessary. The bones were reunited with chromicized cat gut, and the patient made a good recovery. It is interesting to note how early in life these deformities may be corrected and good union take place. In the case just reported, the value of any operative procedure is very doubtful on account of the paralysis.

THREE CASES OF SECONDARY SYPHILIS *

JOHN H. STOKES, M.D.

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The three patients, whom I wish to show, are all cases of lues, in the active secondary stage and all three still showing the primary lesions in various stages of involution.

CASE I. This is the case of Mr. C., who entered the Hospital with a brilliant maculo-papular rash. A feature of special interest in this case is the way in which he acquired his infection. We are, of course, sufficiently accustomed to expect the venereal exposure as a source. This man admits exposures but they were, according to his statement, all prior to his marriage a year and a half ago. The source of his infection is extramaritial, but it is also extragenital. The patient is a bartender, and in the course of his duties, he was obliged to eject a drunken patron from the saloon in which he was employed. The man made an active resistance and the patient found it necessary to strike him in the mouth. In so doing he cut the knuckle of the second finger of his right hand upon the man's upper teeth. The wound bled profusely at the time and was cleansed with peroxide by a druggist, who also applied a salve whose nature we do not know. For a week the patient had considerable pain from the cut, which, however, presently healed over and ceased to trouble him. About two weeks after the occurrence he first noticed a swelling at the site of the injury which enlarged slowly without affecting the mobility of the joint, and presented some bluish discoloration. The intumescence has remained essentially unchanged since reaching its present size, and the almost cartilaginous induration beneath the scar of the injury must be apparent to all of you. The lesion is a hard chancre. This man has developed an extramaritial primary, which is of a sufficiently well-known type to have received a special name —the brawl or fist chancre. It may serve as a vivid reminder to us of the risk which each and every one here may take when he strikes a tough or other opponent on the mouth with the naked fist, whether in self defense or in assuming the aggressive in response to an affront. Incidentally, with the history of the use of an ointment before us, let me remind you of the prophylactic virtues of the calomel ointment in 40 per cent strength, when promptly and vigorously rubbed into an abrasion open to the suspicion of having become infected with pallida. The absence of superficial erosion or ulceration in this case does not, in the face of the circumscribed, non-inflammatory, painless induration, invalidate the diagnosis of hard chancre. The last link in the chain of evidence establishing the specific nature of this lesion was obtained by Dr. Wile's aspiration of a small amount of lymph from the deeper portion of the induration with an ordinary hypodermic syringe. In this lymph we had no difficulty in demonstrating the presence of three or four pallidae to the dark field, one-twelfth oil immersion. The generalization of the infection from its initial site was of course followed by the outbreak of secondaries, of which his brilliant rash is the most striking. The eruption is polymorphous in character and may be described as a maculo-papulo-squamous, or more briefly as a large papular syphilide.

* Read before the Clinical Society of the University of Michigan, October 1, 1913.

A number of the lesions, especially on the trunk, were almost psoriasiform in type. The moment one glances at the eruption, however, one feels instinctively the indefinable premonition that this will on closer examination prove to be specific. The only rash with which this might reasonably be confused is that of a variola in the pre-pustular stage. The differentiation from the eruption, objectively, depends upon such factors as the distribution, the rash in this case involving the trunk too much for a variola, and the entire absence of any sign of actual or impending pustulation. The process moreover is an indolent one, the individual papules being of a much less lively tinge than the acutely inflammatory variola papules. The presence of the roseola with the papular rash is also an important element in the differentiation. If we permit ourselves to use the anamnesis, the entire absence of the characteristic prodromata of the variola eruption further establishes the specific nature of this rash. A very interesting feature brought out by this case is the inverse relation which exists between the large papular syphilide and the occurrence of mucous membrane lesions.

This patient, in spite of the extensive involvement of the skin, presents practically no involvement of the mucous membranes. In addition to the frank eruption this man presents other evidences by which we may estimate the severity of his infection. He has lost twenty-five pounds in weight in a few weeks, has marked nervous symptoms, has nocturnal osteocopic pains, cephalalgia, and according to his history, was for a time so prostrated as to be compelled to remain in bed. All these considerations identify the type of disease from which this man is suffering as the asthenic with the nervous symptoms perhaps somewhat more accentuated than usual. He has a marked general adenopathy, in connection with which let me call your attention to the striking difference between the epitrochlear of the right arm and that of the left. The axillary glands on the right are perhaps also somewhat larger than those on the left. This is, of course, somewhat more than the general secondary adenopathy —it is in fact the painless, indolent satellite bubo of this man's extragenital chancre. You notice that I wear gloves rather from habit than from necessity in this case. Contact with the rash so long as the patient's skin remains unbroken does not expose the examiner to the risk of infection, although of course the spirochaeta are present here beneath the unbroken cutis of the papules as they are in fact in every definitely syphilitic lesion. Should the surface of one of these papules, however, become eroded as it might, especially where moist surfaces are in contact, such a lesion would at once become a source of infection. This patient is married and it is, of course, a matter of importance to discover whether or not his wife and young child have been infected. Balancing the probabilities, in view of the absence of the highly contagious mucous membrane lesions the prospects seem good that they have escaped. We have, however, drawn blood from the mother for a Wassermann test. The patient's Wassermann is strongly positive.

CASE II. The second case which I want to present is one that came originally to the Surgical Clinic. This is C. B. nine years old, who was brought to the Hospital on account of a trouble with his hip, which is apparent at first glance. He is one of a family of a considerable number of children, all of them older than himself. The mother is dead and the father died last June of what was reported to be an ulcerating tumor on the face. There is no history of miscarriage and the children, as far as lues hereditaria is concerned, are entirely free. The patient had been with his father within a week of his first entry into the Hospital, on May 14th. He was discharged from the Surgical Service June 26th, and from that time until he re-entered on September 15th, he was under the care of his grandmother. During his first stay in the Hospital, no evidences of any skin lesion are reported. When he was brought to the Hospital the second time, however, there was a large eroded and ulcerating area on the scrotum at the root of the penis. The grandmother, according to the boy's statement, had given the lesion local treatment and it had been seen by his home physician, who apparently had found no reason to suspect its real nature. On Sept. 17th, his secondary rash was noticed for the first time.

As regards the length of time that the boy had had the scrotal erosion we have only the boy's statement that he first noticed the chafing and irritation from his trousers on June 26th, the date of his previous discharge. This would place the time of his initial infection in all probability prior to his first entry into the Hospital, when he was living with his father. When his general condition first attracted attention he had a roseola covering his entire body with the exception of the head, neck, face and hands. The possibility of an exanthem led to an immediate consultation on his case and the patient was seen by Dr. Wile. While the rash was macular over the body there were several discrete papules on the penis and by abrading the surface of one of these Dr. Wile demonstrated the presence of the pallida by dark field examination. The case was a distinctly puzzling one, although on analysis only one area over the left hip could well have passed for an early measles even had the distribution been typical. The relation between the area on the scrotum and the secondary outburst quickly became ap-

parent. This, too, is a hard chancre, conforming in a general way to the primary lesion described by Fournier as *chancre hypertrophique* although, of course, the tremendous intumescence of the hypertrophic chancre of the face, as described by him, is not present here. The general induration is less apparent now perhaps than before treatment was begun but I think you can easily see the more localized infiltration at the base of the penis which represents the remains of the true chancrous induration. You note also the slightly eroded area over the surface of the indurated plaque. This entire area is then the boy's primary lesion—a giant chancre. Just previous to his first injection of salvarsan given on the 21st, he showed the slight temperature, characteristic of the secondary stage. Following his injection he reacted violently, the picture being that of the typical Herxheimer reaction and indicating that the boy was full of pallida. His temperature rose rapidly to 104° about six hours after he received the salvarsan and was entirely unaffected by the tepid sponge which was ordered for him. It fell to normal as promptly towards morning. His roseola was considerably more vivid on the morning following his treatment, illustrating, of course, the typical temporary lighting up of the infection characteristic of a Herxheimer. The second injection, given on the 27th, in which he received twice the initial dose of fifteen hundredths grams, resulted in no reaction. The boy is now rapidly improving, although I think those of you who are near enough can still see, in spite of the artificial light, the last traces of the roseola on the trunk, showing through the normal *marmor cutis*.

The prognosis, of course, is of great interest in this case. It may be tersely expressed as bad in young children and very old men. Dr. Wile considers this boy's prospects of a complete recovery as very good. Had the boy been in the hands of even fairly competent medical advice at home, it is quite conceivable that an error in diagnosis would have allowed him to develop some perhaps serious tertiary accident before he came under treatment. The origin of the boy's infection, I am sorry to say, we are not as yet able to establish. The boy states that one of his married sisters had a blotchy rash and that he used her towels. How much of this has been suggested, of course, is problematical. The site of the lesion at the base of the penis lends color to the suspicion that this boy has been subjected to indecent practices and that contact with somebody's mouth or somebody's vulva is responsible for this primary sore.

Case III. Mr. R. a case of secondary syphilis. The patient came to the Hospital with a sore mouth and a rash over the body. He gave a history of clandestine exposure, followed several weeks later by the development of a small, hard papule on the penis. The lesion did not reach a very large size and under treatment is now well on the road to involution. I think, however, you can all see the remains of the hard chancre on the prepuce and note the elevated, indurated plaque and the raw-ham coloration so often mentioned in Fournier's classic descriptions. The skin manifestations consisted simply of a roseola on the trunk and papulo-squamous lesions on the palms and soles. The patient, however, had a mouth full of mucous patches and a number of papules on the dorsum of the tongue. In this particular he illustrates, as did Mr. C., though in the opposite way, the inverse relation between the mucous membrane and skin manifestations in the secondary period. The patient is of the asthenic type, showing a marked loss of weight, fourteen pounds in nine weeks, a specific cephalalgia, arthralgia and myalgia, all of which showed the characteristic feature of syphilitic secondary pain—nocturnal exacerbations coming on especially after the patient is warm in bed. The arthralgia affected the left elbow and although the patient complained of slight stiffness, absolutely no evidence of joint involvement could be discovered.

This man's tibiae are especially interesting. Even at this distance I think you can note the non-inflammatory thickening due to a local periostitis upon the anterior surface of the bone in the right leg. Such a process, while not a true gummatous infiltration, is perhaps a rather advanced secondary manifestation. The highly localized excruciating tenderness on pressure is very characteristic of this form of periosteal involvement. The tenderness practically disappeared and the pain in the left elbow has cleared up following three injections of neo-salvarsan.

I might also call your attention to a rather rare condition which this man presented on entering—a secondary papule on the plica semilunaris at the inner canthus of the right eye. This is homologous in every way with a papular syphilide anywhere else on the body but its occurrence at this site is distinctly rare. I am sorry that arseno-therapy has deprived you of the pleasure of seeing it to full advantage. The papules on the tongue, those of you in front will have no difficulty in seeing. You note, of course, that they are elevated and that the surface shows no sign of the superficial erosion, with slight inflammatory areola and the grayish pellicle, characteristic of the mucous patch. We are, of course, interested again in estimating the virulence of this man's infection. He has a tremendous adenopathy, a finding not usually associated with a malignant syphilis. On the other hand even this early in the disease there is a marked involvement of the central

nervous system. Although the patient states that he has had no eye symptoms, ophthalmoscopic examination of his fundus shows that he has a neuro-retinitis. We should, therefore, be inclined to rate this as a rather severe case. Paradoxical though it may seem, this man is to be congratulated on the multiplicity and severity of his symptoms, which have brought him within reach of vigorous and systematic treatment. It is to be expected that under efficient management and with proper co-operation on his part, his infection will run a mild course to complete cure. Before I have him stand up for your inspection of his adenopathy I want to call your attention to the annulat whitened areas on the soles of his feet which represent the scaling remains of his papulo-squamous syphilide. The fact that all asthenics do not conform in every particular to an absolutely uniform type is brought out by the fact that Mr. C., whom I first showed you, has a very large, easily palpable spleen, while this man's cannot be felt.

You notice the remarkable discrete painless adenopathy in the cervical region on this patient. He might almost pose as a model for the visible demonstration of the occipital and posterior auricular, the parotid, the submaxillary and the anterior and posterior cervical lymphatic ganglionic groups. There is an equally striking enlargement of the inguinal, epitrochlear, axillary and femoral nodes. This is also an exceptional opportunity for us to post ourselves on the location of the sub-mammary node, at the lower border of the pectoralis major muscle. You note that it lies like a buck shot under the skin. On entrance he presented another evidence, possibly of lymphatic involvement in the form of a localized cylindrical swelling like a pipe stem under the skin on the inner aspect of the right calf. While it was hard and exquisitely tender, there was no sign of active inflammation, or of edema, discoloration or prominence of the superficial veins such as one would expect with a thrombophlebitis. The condition was interpreted as a lymphangitis, such as is sometimes seen on the penis during and after the presence of the primary lesion. The possibility of a periphlebitis was also thought of, and I must confess that with the light striking it as it does now, what remains of the linear infiltration is practically continuous with the visible elevation caused by the internal saphenous vein.

1608 Geddes Ave.

DISCUSSION

DR. HARRY B. SCHMIDT: I would like to ask Dr. Stokes if that lesion on the bone of the lower leg could be a tertiary lesion. Recently several internists have described secondary and tertiary lesions in the heart of patients in the secondary stages of syphilis. I recently saw a case, referred by Dr. Wile in the secondary stage of syphilis, who after salvarsan developed a bradycardia. The question arises whether the salvarsan produced this or a syphilitic heart disease.

DR. D. MURRAY COWIE: This patient entered the Surgical Clinic for treatment of tuberculosis of the hip. He had been discharged and re-entered for further treatment. When he left the hospital there were no signs of scrotal involvement or eruption. Soon after re-entering, the scrotal lesion was observed. Its nature was not recognized until after the eruption developed. He was referred to the department of infectious diseases, Dr. Crissy being then in charge, who made a provisional diagnosis of lues and referred the case to Dr. Wile who confirmed the diagnosis.

DR. STOKES (closing the discussion): The case that Dr. Schmidt has just mentioned was a very interesting one indeed. The young man was of the asthenic type. He was given a rather large initial dose of neo-salvarsan and had a marked reaction. At six o'clock the following morning his pulse and temperature were normal. He got up and walked down stairs without permission but later returned to bed. Within half an hour his temperature began to fall and his pulse fell with it. The drop continued until his temperature had reached 96.6° and his pulse 60. It was in the eighties on entrance. The boy looked yellow and had passed no urine for a considerable length of time. We were genuinely alarmed and immediately began vigorous stimulation. Under strychnine, local heat, hot coffee and whiskey enemata his condition improved during the day and the indefinable toxic expression and listless, drowsy manner passed off. During the night, however, his pulse fell to 46 and his temperature to 96°. On auscultation only a slight irregularity in rhythm was apparent. Several days later his treatment by neo-salvarsan was resumed and he received three other injections without complications.

The point which Dr. Schmidt brought out about the close relation between secondary and tertiary lesions I have heard frequently emphasized by Dr. Wile. The differentiation between a secondary and tertiary lesion in some usages of the term is based on chronology and refers to time rated from the initial lesion. It seems to me that the pathological basis for the distinction, which makes gummatous infiltration the essential characteristic of the tertiary period is a more rational one.

Relative to Dr. Cowie's point in connection with the boy, I might explain that Dr. Cowie was absent from the city at the time and through some inadvertance there was a miscarriage of the refer slips. We were not aware that the case had been diagnosed as secondary lues before it was seen by Dr. Wile

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TWO CASES OF CARCINOMA OF THE PROSTATE *

IRA DEAN LOREE, M.D.

Clinical Professor of Genito-Urinary Diseases, University of Michigan.
(From the Genito-Urinary Clinic, University Hospital, Ann Arbor, Michigan.)

The two patients whom I wish to present for your consideration are males, fifty and fifty-seven years of age. They both came to the Hospital because of difficulty in passing urine. The elder man has been sick since July and the younger man about the same length

* Read before the Clinical Society of the University of Michigan, October 1, 1913.

of time. They have both passed some blood, and while the elder is able to empty the bladder with a great deal of difficulty, the younger patient has almost complete retention. They have both had pain, not only across the lower abdomen but radiating to the thigh, perineum and glans-penis. On rectal palpation the elder man had a rather hard nodular mass in the region of the right lobe of the prostate, while the palpating finger in the other encountered a small mass of stony hardness not confined to either lobe.

On the above findings the clinical diagnosis in each case was carcinoma. In the elder man I performed a palliative operation, opening the bladder through a perineal incision for drainage and the relief of his pain and discomfort. At the same time a small portion of the tumor was removed for pathological examination, which, later, confirmed the clinical findings.

The younger man who, because of his retention most needed the pallative operation, desired to return home for a time before undergoing operative interference.

Carcinoma of the prostate may be divided into two classes, namely, intra- and extra-capsular. A large number of the former class that have come under my observation have shown an area of beginning malignancy in a lobe where senile hypertrophy had existed for a much longer period of time. The existence of malignancy is not suspected until the microscopical examination has been made and a large majority recover after an enucleation of the gland.

In dealing with the extra-capsular variety the surgeon sees but few cases that are favorable for the Young operation, which consists of total expiration of the gland with its capsule, a portion of the bladder wall and the seminal vesicles. I have one patient operated four years ago by this method with a very gratifying result, the history of which I have already reported. In a large proportion of these cases as I have already stated, the only aid we can render is palliation for the relief of a distended bladder or the pressure of the neoplasm upon the nerves.

ADDISON'S DISEASE WITHOUT PIGMENTATION. REPORT OF A CASE WITH AUTOPSY *

HARRY B. SCHMIDT, M.D.

Instructor in Clinical Microscopy, University of Michigan. (From the Medical Clinic, University Hospital, Ann Arbor, Michigan.)

The patient, Mr. P. K., laborer, age 32, entered the University Hospital, August 20, 1913. As the patient was a Greek and unable to speak English, the history is rather uncertain. All that could be obtained was that he had been sick in Detroit before he came to the Hospital. He complained of severe headache and diarrhea, because of which he had to quit work and was confined to his room for four days. He was then taken to the Marine Hospital, where he stayed eighteen days and was then dismissed as well. While in the Marine Hospital he had a very severe epistaxis. For a time after his dismissal from the hospital he felt fairly well but complained of being extremely weak and had several fainting spells. Since August 17, he has become much worse, has had very severe headaches, does not remember of having had chills, complains of feeling very hot and having pain in the splenic area and to the right of the umbilicus. He is greatly constipated. He does not remember having seen any blood in his stools.

The patient looks very sick and is apparently slightly chilly. His pulse is small, quick and frequent, but not dicrotic. His tongue and mouth are clean, his throat not reddened. The thorax moves well; breath sounds are clear and the heart sounds approach tic tac rhythm. The patient rests with his knees drawn up. The abdomen is rigid and below the level of the ribs there is no distention. The spleen is firm and easily palpable, and there is considerable gurgling in the abdomen. No generalized or local tenderness can be made out, although the patient points to the abdomen with motions of distress. Rose spots were looked for on several occasions but never found.

On August 24, a Widal in 1-10 dilution was positive in twenty minutes. Widal in 1-50, no clumping in one hour. On the 25th., the Widal in dilution of 1-30 clumped in twenty minutes.

The temperature at the time the patient entered the hospital ran between 100.4° - 102° with pulse between 96 and 102. Respirations were 24-28. The patient had seven stools on the first day of entrance, afterwards the bowels were moved by enema. For four days after entering he ran a continuous irregular temperature up to 102.8°. On the 5th day his temperature fell to normal and on the 4th of September his temperature became subnormal, ranging between 96° and 99° by rectum. His pulse after the temperature fell ran between 78 and 88. His temperature remained subnormal until the day before he died, when it arose to 102.6° by rectum. During this time his mental condition was apathetic at all times, but occasionally he had hallucinations of sight with mild delirium. For two weeks his pulse was of very low tension, very small and at times was imperceptible at the wrist. His heart sounds were very faint and approached tic tac rhythm. Most of the time, the sight of food seemed distressing to him and for two weeks

* Read before the Clinical Society of the University of Michigan, October 1, 1913.

before his death he refused almost all nourishment taking only an occasional spoonful of milk or albumin water. The urine examination was negative. Blood examination showed 5,290,000 red cells, 7,100 whites and hemoglobin of 90%. Stools were negative. The systolic blood pressure taken on the 14th of September was 65.

An early diagnosis of typhoid fever was made because of the positive Widal in dilution of 1-30 in twenty minutes and he was treated as a frank case of typhoid fever with a post-typhoidal psychosis up to the day he died. No blood cultures were taken. However, in view of the low blood pressure, retracted abdomen with peculiar onset, and prolonged subnormal temperature, a final diagnosis of miliary tuberculosis with involvement of the adrenal glands was made before the autopsy, in spite of the fact that no pigmentation of skin or mucous membranes could be found.

The autopsy disclosed caseous tuberculosis of the mediastinal lymph nodes, extensive pleural adhesions, small heart with brown atrophy and fatty degeneration. There was enlargement and hyperplasia of the spleen, hyperemia and enlargement of Peyer's patches, enlargement of the retroperitoneal glands and mesenteric lymph nodes and caseous tuberculosis of both adrenals. No disseminated tubercles were seen in the liver, spleen or kidneys nor in other parts of the body. Examination of the brain was negative.

It has often been noted that Addison's disease without pigmentation usually runs a rapid course, as was the case with our patient. The enlargement of the spleen is rather uncommon in this condition.

In conclusion: A patient sick in the Hospital for thirty days and indisposed for some time before this was believed to have typhoid fever. On account of a prolonged subnormal temperature and low blood pressure together with other atypical manifestations the diagnosis was ultimately changed to Addison's disease without pigmentation and this diagnosis was confirmed at autopsy.

DISCUSSION

DR. JAMES H. AGNEW: I saw this patient early in his febrile period. A Widal in dilution of 1-10 was positive, and 1-50 negative. Later on another Widal was taken and a dilution of 1-30 gave a positive reaction. As far as the Widal is concerned it is the custom in this laboratory to take as a standard a dilution of 1-50, which if positive should clump in one hour. We also generally take a 1-10 dilution, as a check for any gross error. In this case while a positive reaction in 1-30 dilution should not have been considered, yet every so often in early typhoid, we find these beginning reactions.

I did not see the patient after that, but upon my return, was told he died of Addison's disease. The most significant feature of this was the absence of pigmentation, which may not be extensive but is practically always present at some stage of the disease. We often find other signs and symptoms in Addison's lacking but the pigmentation can generally be depended upon.

As regards the diagnosis of miliary tuberculosis, I would say that the physical signs in the chest were negative. No X-ray was taken because the physical examination did not indicate it.

The JOURNAL
of the
Michigan State Medical Society
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E. H. Webster .....Sault Ste. Marie .....12th District
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Reuben Peterson .....Ann Arbor .....14th District

All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscriptions are to be addressed to Frederick C. Warnshuis, M. D., 91 Monroe Ave., Grand Rapids, Mich.

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Subscription Price—$2.00 per year, in advance.

NOVEMBER

Editorials

REFRACTION BY THE GENERAL PRACTITIONER.

The doing of refraction work by the general practitioner, as advocated by the late Leartus Connor, is a move in the right direction and should not be abandoned now that its champion is no more with us.

Dr. Connor's idea was that the general practitioner, the family physician, should do more refraction work and thus turn aside a great deal of this work from the optometrist back into the physician's care where it rightfully belongs.

The family physician, by a very little extra qualifying, would be able to do the simpler refractions much better than the average optometrist does them and would also recognize other conditions in the patient, evidenced by eye symptoms, which need treatment and which the optometrist does not recognize because he knows nothing about them. The early recognition of these conditions and their prompt treatment are of vital importance to the patient.

A very lengthy article could be well written upon this subject and only fairly cover the text without going into details.

Some general practitioners have taken up the work as Dr. Connor urged and are doing it very well. Some, however, are not doing it well enough. Some simple points that are very important are being neglected.

Doing a refraction is not a simple affair of five minutes. Especially is this true when the patient is a child or adolescent.

Many Hyperopes will say that they see better when minus lenses are placed in front of the eyes being tested. Don't put minus lenses on a Hyperope. If the refractionist is satisfied with manifest refractions he is liable to do this.

Here is a simple fact that will often prevent the making of this mistake. A Myope can *never* see 20/20 without his correction. A Hyperope very often can see 20/20 without his correction.

If the patient can see 20/20 or any letters in the 20/20 line on the test type card and states that he can see better with — 0.50 D.sph. and sees worse with + 0.50 D sphere, it should not for a moment be accepted that he is a Myope. He is not. And if the muscles of the accommodation cannot be made to relax by the fogging system used at the office, atropin should be used sufficiently unless contra-indicated and a second refraction done in a day or two. Then it will be done right; and it is surprising how many Hyperopes will be found who appeared Myopic on manifest refraction.

The number of Hyperopes found wearing minus lenses and the number of astigmatics wearing spheres instead of cylinders, are reproof to hasty refraction work. And they are not *all* to the responsibility of the optometrist and the family physician refractionist. The careless oculist supplies a generous share.

V. A. C. CHAPMAN.

WHY, WHAT AND HOW SHALL WE READ?

The trite saying that a man is known by the company that he keeps may be altered, in a measure, to apply to our profession and thus cause us to say: A doctor is known by his library and reading. The poorest doctors, as a rule, are those who depend solely upon their own observations, their own experiences and their own studies. No man can pursue a cloistered existence and be broad, abreast of the progress of the times, in the van of his profession or belong to the class of modern physicians and surgeons.

It is necessary for every physician to be conversant with the experiences, the thoughts, the studies and investigations of his co-workers. This is absolutely essential in order that he may be enabled to enjoy intellectual broadness

and unbiased or mature judgment. To become broad-minded and to possess the ability to think logically and soundly demands that the doctor must devote time and study to the cultivation of these desirable qualifications.

How may our time be best employed in order that we may attain this mental development and training? First: Attendance upon local, state and national medical meetings and the active participation in the deliberations of these organizations. Second: By pursuing from time to time, post-graduate work in some recognized clinic or laboratory. Third: By well planned reading. All three of these means are essential; the first as well as the last and the second as well as the other two; we cannot afford to slight or neglect one of them. It is our intention in this article to only enlarge upon the third requisite: well planned reading.

To progress uniformly, to progress intelligently, to progress steadily one must be conversant with medical literature. He who fails to devote a certain amount of his time to daily reading need never expect to gain a place in his profession that will cause others to respect or seek his opinion.

We admit that there is so much that is written that even though a man does spend an allotted time each day in reading, it still would be impossible to cover the field. How then may we best proceed so as to secure the greatest good and cover the most essential subjects? The following suggestion is advanced as a tentative plan that may be enlarged upon or altered as the individual may determine:

The young graduate, entering into practice, has devoted the majority of his college years to the reading and studying of text-books. From them he has obtained much that he knows and to them he has been accustomed to turn when in search of information. This man must now learn that from now on his text-books must gradually be relegated further and further in the back-ground. Text-books will only possess for him a certain measure of future value and while it is well from time to time to purchase a new edition in order that we may remain conversant with the teachings of certain groups of present day teachers, yet we cannot help but admit that in this present day of progress and rapid advancement the new text-book of today in from three to five years will cease to be accepted or classed as an authority. He who is limited in funds will do well to invest but little in text-books, for in all too short a time they will be found without intrinsic or ultimate lasting value.

In the line of text-books, we believe that monographs are of very appreciable value. Their contents is based upon the author's personal experience, investigations and studies. As such they have distinct authoritative weight; they exert a broadening influence upon the reader's mentality; they enable one to become intimately familiar with the opinions and experiences of a recognized leader and authority. One cannot read Cushing's recent monograph, giving as it does such a mint of information that has been developed from the author's personal work and experiments, without deriving therefrom great profit. This is but an illustration; there are numerous equally valuable monographs. Time spent in reading and studying them will be well invested and productive of educational results to the reader. They add to the value of one's library.

In addition to the foregoing what other sources are there for pursuing a well planned course of reading? The Medical Journals.

Here, many of us are short-sighted and careless. The field is large and we unthinkingly select and subscribe to one, two, three, or possibly five and maybe ten journals. They come to our desk; often they remain unopened; possibly we may read their table of contents. In time, when the pile occupies too much room on our desk or floor, some one is employed to cart them off to the paper dealer. Time, money, valuable literature are wasted through such procedure and naturally we say that we subscribe to three, five or ten journals but derive no profit therefrom. How can you expect profit to be derived through such procedure? A system must be adopted in order that you may receive the greatest good from your journals.

Our time is admittedly limited and it is essential that some definite course must be determined upon if we ever hope to realize the greatest benefit and intellectual advancement from our journals.

Everyone, no matter whether he be specialist or general practitioner, should subscribe to the recognized national journal, *The Journal of the American Medical Association.* First, because of the many valuable articles that it contains and secondly because we should maintain an interest in and be associated with national organization work and propagandas for public as well as professional advancement and betterment. By the reading of this journal one may also remain informed as to the transactions and deliberations of national bodies and medical news in general.

Practically every special branch or department of our profession has a national journal, of excellent reputation, devoted exclusively to the publication of articles bearing upon their particular specialty. He who is engaged in any special field of work will find it to his interest to subscribe to one or in some instances two journals that cover his particular field.

Then there are several excellent journals that are devoted to reporting the work that is being done in research and experimental medicine and

surgery. The cultivation of the habit of being conversant with the progress and results of workers in experimental medicine will be inducive to our mental broadening. Time should therefore be allotted to the reading of one such journal.

No matter what our particular field of work may be we should all read with persistent diligence some journal that exclusively covers the field of internal medicine.

With one exception, most of these journals are published monthly. The devotion of an hour or two each day will suffice to enable one to read these journals, digest what we have read and apply our newly acquired knowledge and information in our daily work.

Having read our journals what shall we do with them? But one thing—save them carefully and upon the completion of a volume have them bound. The cost of binding a volume is nominal. The possession of these bound volumes will supply us with: first, excellent reference books; second, they will be of wonderful assistance in our medical writings; third, we will be possessed of a permanent record of medical progress. A card index of their contents may be readily perfected so that any given article or subject may be turned to in but a moment's time. As the years pass the increasing number of these bound journals will raise the value of our library and will cause us to feel a pardonable pride in them. But, more than this, we will have increased and broadened our mental faculties and developed to an extent so that our judgment, our opinions, our advice and our work will be respected by our fellow workers.

A doctor cannot afford to carelessly pass this matter of his readings and his library.

A UNIVERSAL FEE SCHEDULE. WORKINGMEN'S COMPENSATION ACT.

At the Annual Meeting of the Michigan State Medical Society held in Flint on Sept. 4 and 5, the following resolution was introduced:

RESOLUTION.

"Whereas, Act Number 10 of the Public Acts of the Extra Session of 1912 provides that the Michigan Industrial Accident Board shall have supervision over the charges made by the physicans for the services rendered injured employees in the state, and

Whereas, the Michigan Industrial Accident Board regards as advisable the establishment of a schedule of fees, covering this class of service, and

Whereas, the physicians of the state can with much more fairness and with more probability of securing the universal adoption of said schedule of fees, establish this standard of charges, than could the board of laymen,

Resolved, that the president of the Michigan State Medical Society appoint a committee of five for the purpose of establishing a schedule of fees for the surgical care of those injured employees who come under the Workingman's Compensation Law, and be it further

Resolved, that this Committee confer with the Industrial Accident Board and various claim adjusters of this state with a view of securing as far as possible a harmonious and equitable adjustment of this matter and report the results of their labors through the columns of The Journal of the Michigan State Medical Society."

It was supported by Dr. Tibbals of Detroit and Dr. Hume of Owosso, and duly carried.

The President appointed the following committee in accordance with the above resolution:

Bret Nottingham, Lansing, Chairman.
C. H. Hitchcock, Detroit.
C. F. Baker, Bay City.
C. T. Southworth, Monroe.
F. C. Warnshuis, Grand Rapids.

The Chairman of the committee herewith submits his report as provided by the resolution.

A UNIVERSAL FEE SCHEDULE

Workingmen's Compensation Act.

September 25, 1913.

Dr. F. C. Warnshuis, Sec. of the Michigan State Medical Society, 91 Monroe Ave.,
Grand Rapids, Mich.

Dear Doctor:—The committee appointed by the President of the Michigan State Medical Society at the Flint meeting, met on September 23rd in Detroit with a similar committee appointed by the Casualty Claim Men's Associaton for the purpose of agreeing upon a schedule of fees governing the services of physicians practicing under the terms of the Workingmen's Compensation Law.

There was only one absentee in either committee.

During the general discussion it was decided that the basis for fixing the fees should be the average charge made to the average workingman for a similar service.

In fixing the schedule the fact that physicians are guaranteed an immediate settlement for three weeks' medical service in every instance in which an employee who comes under the terms of the Compensation Law is injured, was also taken into consideration.

The schedule of fees which most of the liability companies in the State of Michigan have used was then taken up for discussion and when finally adopted it was found that the fees had been raised in twelve different items and lowered in none.

I herewith hand you a copy of schedule as unanimously adopted by the members of the two committees for publication in the Journal as provided in the Flint resolution.

It is the earnest desire of the members of the medical committee as well as the Casualty Claim Men's Association that the physicians throughout the state recognize this schedule of fees as a standard in charging for services rendered injured employees in the future.

Considerable friction has been engendered between the Industrial Accident Board and certain physicians because of disputes concerning physician's fees and the recognition and adherence to this schedule will avoid this unnecessary and disagreeable feature, in the future.

In Massachusetts this dispute came to such a crisis that the Governor of the State was forced to take a hand and appointed a commission to fix a schedule of fees binding physicians within certain limits in the matter of charges. It is hoped that this or any other similar drastic measure can be

avoided in Michigan through the co-operation of the profession

Your committee has given this work their most careful study and we trust that the result may be acceptable

Sincerely yours,

BRET NOTTINGHAM, CHAIRMAN.

"Sec. 4. During the first three weeks after the injury the employer shall furnish, or cause to be furnished, reasonable medical and hospital services and medicines when they are needed." From Workingmen's Compensation Act.

MEDICAL FEE SCHEDULE

Dressings, etc.

	First Aid	Subsequent Aid
Ordinary day visit, not necessitating antiseptic dressing	$1 50	
Visit necessitating and including antiseptic dressing	2 00	$1 50
Visit including both antiseptic dressings and necessary operative procedures in ordinary cases of contusions, lacerations, incisions, punctures, etc.	3 00	1 50
Night visit—9:00 P.M. to 7:00 A.M.	2 50	
Office examination and report—ordinary	2 00	
First attention at office, including operative procedure and dressing of ordinary wound	1 00 to 2 00	1 00
Removal foreign body from conjunctive	1 00	1 00
Removal foreign body from cornea	2 00	1 00
Office dressing ordinary wound	1 00	1 00

Amputations

	First Aid	Subsequent Aid Hospital or Home	Subsequent Aid Office
Hip joint	$75 00	$2 00	$1 00
Thigh at any point	50 00	2 00	1 00
Leg or foot	25 00	2 00	1 00
Shoulder joint	40 00	2 00	1 00
Arm or forearm or hand	25 00	2 00	1 00
Metatarsal or metacarpal, single	10 00	1 50	1 00
2 or more	15 00	1 50	1 00
Fingers or toes, single	5 00	1 50	1 00
2 or more	10 00	1 50	1 00

Fractures

	First Aid	Subsequent Aid Hospital or Home	Subsequent Aid Office
Upper arm	$20 00	$1 50	$1 00
Forearm, one bone	10 00	1 50	1 00
Both bones	12 50	1 50	1 00
Femur	20 00	1 50	1 00
Lower leg, one bone	10 00	1 50	1 00
Both bones	15 00 to 20 00	1 50	1 00
Jaw	10 00	1 50	1 00
Ribs, one or more	5 00	1 50	1 00
Patella	15 00	1 50	1 00
Pelvis	15 00	1 50	1 00
Metatarsal or metacarpal	5 00	1 50	1 00
Finger or toe	3 00	1 50	1 00
Two or more	5 00	1 50	1 00
Scapula	10 00	1 50	1 00
Clavicle	10 00	1 50	1 00
Nasal bones	5 00	1 50	1 00
Compound fractures—add 50 per cent. for first aid only		1 50	1 00

Dislocations, etc.

	First Aid	Subsequent Aid Hospital or Home	Subsequent Aid Office
Shoulder	$10 00	$1 50	$1 00
Elbow	10 00	1 50	1 00
Hip	20 00	1 50	1 00
Knee	10 00	1 50	1 00
Ankle	10 00	1 50	1 00
Wrist	5 00	1 50	1 00
Finger	2 00	1 50	1 00
Jaw	5 00	1 50	1 00
Trephining Skull	25 00	1 50	1 00
Ligating important arteries	10 00	1 50	1 00
Reduction of ordinary hernia when due solely to recent injury, and applying truss	5 00	1 50	1 00
Reduction of strangulated hernia by Taxis	10 00	1 50	1 00
Herniotomy	30 00	1 50	1 00
Enucleation of eye ball	25 00	1 50	1 00
General anaesthetic	5 00		
Complete physical examination and report	3 00 to 5 00		
Autopsy—complete with written report	25 00		
Attending but not performing	10 00		
Testimony in Court as to simple fact of injury	10 00		
Expert testimony	15 00 to 25 00		
Passing Catheter	1 50		
X-Rays (to be taken only upon orders by the Company)	$5.00 to $10.00		

Country Calls

Fifty cents per mile beyond city or village limits, one way.

IMPORTANT.

It is absolutely necessary that all bills to employers or insurance companies in compensation cases be itemized, setting out the date of each visit and the charge for the same.

COMMENTS.

The following comments upon the work of this Committee is deemed essential and desirable in order that our members may be in possession of all the details that called for the above action.

The absolute necessity of adopting some schedule that would govern the charges made for medical and surgical service to an injured employee of an employer who had elected to come under the working of this law became apparent very soon after this law was in effect and active. The matter has been held in abeyance in order that those who were more intimately interested in and associated with the administration and enforcement of this law might be enabled to give this matter their careful and mature attention and judgment. Sufficient time has, however, now elapsed so that just conclusions can be drawn and expressed.

The profession has during the past year been the source of greatest difficulty and annoyance to the Industrial Accident Board and adjusters of the various insurance companies by reason of the great variance in the bills that have been rendered for services in given instances. This disparity in the charges made has been from $5.00 to $50.00 in numerous instances.

Certain physicians have endeavored to wrongfully derive personal profit through the administration of this act. Others have rendered statements wherein the *entire* surgical and medical fees have been incorporated in the first three weeks' attendance. Again there have been those who have failed to

itemize their statements. Lastly, bills have been "padded" in many minor cases.

These are but a few of the instances that have been the cause of difficulty and the source of annoyance to the Industrial Accident Board, Insurance Companies, employer, employee, as well as the doctor.

In other states where similar laws have been enacted the same difficulties were encountered and these states finally, through a conference attended by all the interested parties, agreed upon and adopted a uniform schedule of fees that was to serve as a precedent in determining proper and reasonable charges for services rendered in given cases by the physicians and surgeons.

Guided by the experiences of these sister states, the representatives interested in the workings of the Michigan law requested a like conference with representatives of our profession. This was secured by the above resolution; the conference was held; the above Fee Schedule was concurred in and the committee unanimously recommend it to the profession of the state.

There is no doubt but what there will arise certain protests and objections from a few of the doctors in the state. However, if one will but devote a little time to carefully study this schedule he will, we believe, soon perceive its fairness and justness as well as liberality and then realize that this schedule will enable him to secure a very reasonable renumeration for all the services that he may render under this law's provisions.

It is sincerely hoped that those who render medical or surgical attendance to injured employees will be guided by this schedule when the time comes for the rendering of their itemized statements. By so doing they are assured of prompt payment of their accounts and they will obviate all disputes.

It must be remembered that the Industrial Accident Board is empowered to audit all charges and to allow or dis-allow any and every claim. Their decision is in a measure final and appeal of last resort can only be made to the Supreme Court.

It is the opinion of the Committee that the interests of the profession have been safe-guarded and provided for and they, therefore, recommend and endorse this schedule.

COMMITTEE APPOINTMENTS

The Committee appointments for the ensuing year, as determined by our president, Dr. Guy L. Kiefer, will be found in the front form of The Journal in connection with the rostra of the other officials of our organization.

The members whose names are there published as chairman or members of the various appointive committees are respectfully requested to accept this method as official notification of their appointment and to govern themselves accordingly.

Membership upon any given committee carries with it the understanding that each committee will conscientiously devote their time and efforts towards accomplishing the work that may be assigned to their committee. There is a fertile field for every committeeman to become active in and it is to be hoped that when the time arrives for the rendering of an annual report that these committees may be enabled to outline many features that have been promulgated and carried to successful consummation.

Editorial Comments

This issue contains an advertisement in which the advertiser is putting up to our readers the statement made to him by the editor. You are asked to peruse our advertising pages and then lend your individual co-operation to at once convince this business man that advertising in the Journal pays. Do it now and thus help build up your publication.

The attention of our members and officers of county societies is drawn to the following important extracts that are taken from the report of the Committee On Fee Splitting:

The Michigan State Legislature, at its last session, made this and allied forms of graft offenses. Senate Bill 489 has the following pertinent wording. (Section 3, Subsection 6.)

"The board of registration of medicine may refuse to issue or continue a certificate of registration or license . . to any person guilty of grossly unprofessional and dishonest conduct. These words, 'unprofessional and dishonest conduct,' as used in this act, are hereby declared to mean . . . employing or being employed by any capper, solicitor or drummer, for the purpose of securing patients . . . or the division of fees in a consultation or a reference of a patient to a specialist, when no actual professional service is rendered by the physician referring the case, without the knowledge of the patient or the person concerned in the payment thereof."

To your committee it seems fitting that the Michigan State Medical Society should forthwith put the stamp of disapproval and condemnation also on this form of division of fees which has brought shame on the splendid body of medical men in our state.

We, therefore, offer the following resolutions for adoption:

Resolved, That any member of the Michigan State Medical Society found guilty of secret fee-splitting or of giving or receiving commissions shall cease to be a member of the Michigan State Medical Society.

This recommendation and resolution was adopted by the House of Delegates at the Flint Meeting. It is therefore incumbent upon the officers of the county societies to enforce the observance of this enactment in so far as it pertains to the members of their society. We again urge that the full report of the committee

Copyrighted by Surgery Pub. Co. THE INJURED FINGER. Photo by Conyers.

By reason of the kindness of the editor of the *American Journal of Surgery* we are enabled to present our readers with this reproduction of the original photograph—"The Injured Finger."

It has been a very, very long time since we have seen a photographic study that is so natural, so appealingly human and filled with so many characteristic expressions. Note the expression of pain, distress and fear on the face of the patient; that of curiosity and sympathy on the faces of his two "Pals." The doctor is in himself a study and representative of a type of physician of which the entire profession is proud.

All in all, this group, composed of the doctor and the trio of street gamins is one which we feel will be a source of delight to every one of our readers.

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be read at the next meeting of each county society.

The full benefits obtainable through organization efforts will not be realized until the majority of the reputable members of the profession in Michigan become affiliated with our State Society.

To accomplish this it is the duty of every member to put forth the effort that will result in securing the enrollment of every eligible physician in his community as a member. We are requesting that each county organization make it a point to secure the co-operation of its entire membership body to the end that the first of the coming year will see the eligible doctors in every community members in good standing in their county and state medical society. The exhibition of a little concerted action on the part of our members in the various county organizations will enable them to attain this desired end. Will you not put forth the effort to accomplish this?

The Council, in its annual report to the House of Delegates, made the following recommendation:

"At the present time The Journal is receiving from its advertisers $300 per issue. Previous to this year the receipts have averaged from $150 to $160 per issue so that for the first time advertising receipts now exceed the cost of publication. The ambitions above outlined for The Journal depend upon maintaining this increased advertising patronage. This can only be done if our members give preference to our advertisers when buying their sup-

plies—prices being equal—and also in corresponding with advertisers to always mention The Journal. If our members will get the habit of considering themselves personally interested in the financial welfare of The Journal, the work of the Secretary will be much lessened."

The Publication Committee is actively engaged in the work of getting out a more valuable and helpful Journal. The addition of new features as well as the increasing of the number of original articles in each issue create an increased publication expense. As has been stated before, the expense of publication is greater than the revenue derived from subscriptions and the deficit incurred must be defrayed by means of advertising receipts. To secure and maintain in force advertising requires that the advertiser receive a fair return for the money he invests. The amount of patronage which they are to receive is determined by our readers.

Therefore, we again desire to impress our members with the following duty that rests upon them: Patronize our advertisers. Tell them why you are doing so. If each member would but observe this request the Publication Committee will have the privilege of sending out each month a better, more valuable, interesting and instructive Journal to our members.

Make it a point to read every advertisement in each issue and then go one step further and answer them by conferring your orders upon these business men who are making the Journal possible. This is a matter of vital importance and we urge that you give it your careful consideration.

Several of our readers have expressed their approval and appreciation of the Clinical Case Reports that have been published in previous issues. They have also made the request that this feature of The Journal be made still more prominent. We shall always be glad to publish every case report that is sent to the editor. The number that are published each month will be determined by our members. In order that we may be enabled to meet the requests and desires of our readers may we not be favored by being the recipient of a goodly number of Clinical Case Reports?

The winter months, bringing as they do increased demands upon the time of the doctor, often occasion our permitting ourselves to neglect the duty we all owe to our County Society. We are at times too prone to offer the excuse—"Too Tired" and thereby seek to excuse our neglectfulness. A couple of hours spent in attendance upon your society's meeting and the social mingling with your fellow practitioners will prove to be a restful change and what is more—you will be a better doctor. Will you not prove our assertion and comply with this suggestion? Make it a point to attend your next county meeting.

The Journal of the Illinois State Medical Journal is showing a very apparent improvement since its change in editorial management. Representative as it is of the largest state medical organization in this country we are naturally prone to turn to its official publication for information as to the results attendant upon its organization efforts. We shall watch with interest the results that are bound to attend the efforts of the officials of the Illinois State Medical Society in their present endeavor to perfect the work of their state organization.

The preparation that has been made for the entertainment and care of the visitors in attendance upon the Fourth Session of the Clinical Congress of Surgeons to be held in Chicago November 10-16 warrants the prediction that this will be a very valuable and instructive meeting and one which no surgeon can very well afford to miss. The benefit derived by reason of attendance upon the various clinics will repay every Michigan surgeon for the time thus spent. A complete program of all the clinics that will be held may be found in the November issue of Surgery, Gynecology and Obstetrics.

On the evening of November 13, 1913 will be held the first formal meeting for the conferring of fellowships on the members of the American College of Surgeons.

Sir Rickman Godlee, the President of the Royal College of Surgeons of England, will deliver the principal address and extend, officially, greetings to our new organization from the Councillors of the Royal College of Surgeons.

President J. M. T. Finney will deliver the presidential charge, and formally confer the fellowships on all members of the organization who have qualified. Honorary fellowships will be conferred on a small number of foreigners and Americans whom the Board of Regents have selected as worthy of such distinction.

Every qualified member of the organization should make an effort to be present at this convocation, as the Board of Regents is anxious to make the occasion one of impressiveness and dignity in keeping with the far-reaching importance of the organization.

About thirteen hundred applications for fellowship in the American College of Surgeons have been filed with the secretary. Of this number of applicants only about ten hundred

have fulfilled all the requirements in filing their application blanks.

The Board of Regents approved about four hundred men at its Minneapolis meeting. Three hundred additional have been favorably passed upon by the General Committee on Credentials and will be recommended to the Regents for final approval at their next meeting in October.

Too many of the applicants have been careless about filing their preliminary papers. This causes delay in consideration of the prospective fellows' availability by the Committee on Credentials and hence surgeons are urged to complete and file all declarations and other papers as early as possible.

There is an inclination on the part of some men to take it for granted that certain groups of members should be exempt from filing declaration blanks and giving date and references. The Regents have ruled that all applicants shall file the same papers and be submitted to the same scrutiny before they can be recommended for fellowship.

The work of scrutinizing each application and verifying all references on the part of the Committee on Credentials takes much time, hence, prospective fellows must not become impatient if the announcement of their acceptance is delayed.

Deaths

ADOLPH HOCHSTEIN, M.D.

The professional experiences of the eminent medical practitioner at Kalamazoo, Michigan, who is the subject of this sketch, have been unusual from an American standpoint. Many advanced physicians go abroad to finish their medical education. The entire training of Dr. Hochstein was received abroad. He is a graduate of one of the most celebrated foreign universities. He practiced his profession in Germany, and served as a surgeon during the Franco-Prussian war.

Doctor Hochstein was born in eastern Prussia March 13, 1845 and received his education in his native land. He was a student at the college of Hohenstein and Elbing, and graduated at the latter institution in 1866. The same year he entered the Medical Department of the University of Berlin, and completed its four-years course in 1870, receiving his diploma that year. The young physician was appointed Assistant Surgeon in the Prussian army, and served during the sharp and decisive war in which his native land soon after became involved with France. After the close of that war Doctor Hochstein began the practice of his profession at Berlin. He remained there until 1874 and in that year migrated to the United States. For about a year and a half he practiced at Grand Rapids, Michigan, and in 1876 he removed to Kalamazoo, where he has since been engaged in general practice and where he has attained a high professional standing in discharging the duties of an influential and absorbing practice. He is a prominent member of the Kalamazoo Academy of Medicine and has served one term as its president. He has been appointed health officer of Kalamazoo five terms.

Doctor Hochstein was married in Berlin in 1874 to Miss Henrietta Bomster, a native of Prussia. To them have been born two daughters, Amelia and Clare.

IN MEMORIAM

"Abstract from remarks by Rev. Caroline Bartlett Crane at the funeral of Dr. A. Hochstein, where she officiated on account of the absence of the Rabbi."

Speaking of Dr. Hochstein as a physician, Mrs. Crane said, in part:

Dr. Adolph Hochstein's long life lived in our midst is the real address to our hearts on this occasion. Nearly forty years ago he came to this city, as a young man of fine abilities and of extraordinarily good training in a German university and in the Franco-Prussian war.

I think it can truly be said of Dr. Hochstein that never has a man practiced medicine in this community with higher deals of professonal and human service. His reward has been the confidence and real affection of his fellow practitioners, the devoted love of the families to whom he has ministered even to the third generation, and the consciousness of unworldly and single hearted devotion to a profession which, as he practiced it became a ministry to both the bodies and the souls of the afflicted.

Dr. Hochstein at one time served this city as health officer, giving far more of his time and energy than he was compensated for. He was always practically interested in the promotion of public health and the general civic welfare.

I am glad that the kind words and wealth of flowers which come from the members of the Kalamazoo Academy of Medicine today are not belated tributes, therefore tinged with regret and shame. They but re-echo and confirm the splendid honors which were paid Dr. Hochstein at the Academy banquet given in his honor more than a year ago when he was still in the strength of his prime.

Dr. Hochstein's life has been one of noble service, and his death translates a warm human friend and fellow-worker into an ideal and inspiration for the years to come.

County Society News

BAY COUNTY.

The September meeting of the Bay County Medical Society took the form of a clinic, which was held at Mercy Hospital, Bay City, on Sept. 23rd at 2:30 P.M.

Dr. Daniel LaFerte, of Detroit, assisted by his son Dr. Alfred Daniel LaFerte, gave a clinic on Orthopedic Surgery. A number of cases were shown for diagnostic purposes, after which a number of cases were operated. Twenty-five members of the society were present.

In the evening, at 6 o'clock, a complimentary dinner was given the guests at the Bay City Club, after which Dr. Daniel LaFerte gave a short talk on some phases of the operative work. He presented a number of photographs in illustration.

The Bay County Medical Society met at 8 P.M. on Oct. 7th at the residence of Dr. C. W. Ash, 2125 Center Ave., Bay City. After a short business session, at which the name of Dr. Geo. E. Orth of Linewood was presented for membership, the Society listened to a paper on "Caesarean Section" by Dr. W. R. Ballard of Bay City. The doctor brought out the indications for the operation, showing that it is the operation of choice in many more cases than is at present recognized. He outlined

the technic and reported twenty-one cases. The paper was fully discussed.

Following the program the members enjoyed an oyster supper.

H. N. Bradley, M.D., Secretary.

GENESEE COUNTY

The bi-monthly meeting of the Genesee County Medical Society was held in the Masonic Temple, October 7th, at 8 P.M. The meeting was called to order by President Bates, thirty-two members being present.

A committee consisting of Drs. Bird, Clark and H. A. Stewart was appointed to investigate the registration of the drugless practitioners of Genesee County, as in accordance with the new Medical Practice Law.

PROGRAM.

Dr. H. A. Stewart gave a demonstration of a new technic for the Intravenous Administration of Neo-Salvarsan.

Dr. Manwaring reported a case of a successful operation of a child twelve weeks old with Congenital Stricture of the Pylorus, demonstrating the diagnosis with radiographs. The doctor illustrated an unusual case of tubercular hip with radiograph plates.

On motion the meeting adjourned.

C. P. Clark, M.D., Secretary.

HOUGHTON COUNTY.

On Monday evening, October 6th, occurred the regular meeting of the Houghton County Medical Society. President W. T. S. Gregg presided and twenty-two members were present.

Dr. S. R. Edwards and Dr. Don C. Sutton, both of the Calumet and Hecla Staff, were admitted to our membership.

A paper by Dr. W. H. Dodge of Hancock on "The Use of Phylacogens in Therapeutics" was greatly appreciated. A good deal of discussion followed in regard to the practical use of this form of treatment. The doctor was very optimistic because, as he stated, he had accomplished results which heretofore had not responded to anything which he tried. The reaction in the experience of many was sometimes very severe. The concensus of opinion of those present was that the intravenous method of giving this treatment was inadvised. Reports from one physician of a few deaths having occurred by the intravenous method makes it very important that the heart be examined before treatment is started. On the whole, it is without question that the phylacogens have their place in therapeutics, even though a great deal may be said here and there against its usage.

The next paper was by Dr. G. M. Rees of Calumet, on "Meckel's Diverticulum." Should one take the time to look for this appendage in his abdominal surgery he will find the number quite few indeed. In the past year Dr. Rees had four cases. He removed the diverticulum in all four cases, and in two cases where pain in the umbilical region had been present for years, were entirely free of this discomfort after operation. The diagnosis of diverticulum before operation is hardly ever made. In a case of a persistent umbilical fistula, the diagnosis of diverticulitis was made where severe pain had occurred, and on operation the diagnosis was found to be correct, but, the doctor said that is the only case he has read of where a true diagnosis had been made.

One of the members present spoke of his experience in anatomy, where in ninety cases only four had a Meckel's Diverticulum. It would be interesting for surgeons to look for this diverticulum in any abdominal work.

The meeting was adjourned to the lunch room and all present were pleased with the evening's program.

R. LaBine Secretary.

INGHAM COUNTY.

Thursday evening, Sept. 18th, the regular meeting of the Ingham County Medical Society was addressed by Dr. Wilfrid Haughey of Battle Creek.

He discussed especially the phenomenon of paracusis, its etiology and the therapeusis of the associated pathological conditions. He stated that many cases of such deafness may be greatly helped or cured by daily applications to the drum of cantharadin in glycerin, by which a connective tissue forming reaction is provoked, which restores the lost tension of the drum and ligaments of the ossicles.

Dr. Henry S. Bartholomew, Secretary.

KALAMAZOO ACADEMY.

Regular meeting of the Academy was called to order Sept. 23, 1913, with Dr. C. E. Boys in the chair. Minutes of the previous meeting were read and approved. Dr. E. J. Bernstein, chairman of the Library Committee, mentioned the acceptance of the library of our deceased colleague, Dr. A. Hochstein, also he further called the attention of the Academy to the fact that the obituary of Dr. John Fletcher and Dr. A. Hochstein had not been inserted in the memorial records. As chairman of the Library Committee he was instructed by the Chair to complete the memorial records up to date. Dr. Bernstein further discussed the amount of dues paid to the State Society and that the Library Committee could use the fifty dollars that was previously voted for its uses. The question of the state dues created some discussion. The President emphasized the depleted state of the treasury and that our resources were inadequate to meet the legitimate needs of the society. Dr. E. P. Wilbur suggested that the Secretary collect $5.00 per annum per member for the Academy and let the State Society collect its $3.00 separately; the statements mailed to each member should specifically state the amount for the Academy and the amount for the State Society. Dr. O. H. Clark moved, Dr. E. J. Bernstein supporting, that a committee be appointed to confer with the Secretary and Treasurer to ascertain the annual expenses of the Academy, and to determine a just and adequate fee per member to meet the same and report on October 14, 1913. The President stated that there was one committee, namely the Budget Committee which had already performed this act in the year, and that the report of this committee was already on record, it having been acted upon and accepted by the Academy. The suggestion was approved by Dr. Clark and Dr. Bernstein and carried.

It was announced that the Academy would be relieved of the expense of printing the Bulletin in the future as The Upjohn Company had offered to do this.

Dr. E. J. Bernstein moved and Dr. C. H. McKain supported that the Academy approve of this arrangement and that the Academy appreciates the efforts of the Upjohn Company in its behalf. Carried.

Dr. F. E. Barrett stated that the First M. E. church

had refused to accept a fee for the use of the church for the lecture of Dr. V. C. Vaughan of April last, and offered as a resolution that the Academy should mail a communcation to the officials of this church in which there was expressed an appreciation for this courtesy. Seconded by Dr. Della P. Pierce and carried.

The President appointed Dr. G. F. Young of South Haven as a member of the Board of Censors to complete the unexpired term of our deceased colleague, Dr. A. Hochstein. Dr. R. E. Balch read the amendments to the by-laws of chapter 3, section 3, and chapter 4, section 1 of by-laws.

Amendments to the By-Laws.

Chapter 3, section 3, reads as follows: The Secretary shall be the chairman of the committee on program and scientific work, and Secretary of the Board of Directors. The amendment is to read, "The Secretary shall act only as Secretary of the Board of Directors."

Chapter 4, Section 1, reads as follows: There shall be a standing committee on program and scientific work, of which the Secretary shall be chairman. The amendment is to strike out the words, "of which the Secretary shall be chairman". Dr. Bernstein moved, Dr. Clark supporting, that they be adopted and carried.

The President instructed the social committee to act as committee on arrangements for the meeting of the Tri-State Medical Society which would occur in January. Though the annual meeting will occur on December 9, and there was a possibility of a change in the social committee that this committee could adjust itself accordingly.

There were thirty-three present at this meeting.

The minutes of the last meeting of the Academy is replete with evidence of the lack of resource to maintain the actual necessities of the society. The repair fund is exhausted but the improvements have not been completed. Sixty-eight members have not paid the special assessment. When these are in we can purchase the lantern and reflectoscope necessary to enable us to put in the programs material that now is not available because we lack sufficient equipment. Insertions will be found in the Bulletin of all members that have not paid their special assessment. *Fill out the blank. enclose the THREE dollars needed so badly and mail NOW.*

C. B. FULKERSON, SECRETARY.

KENT COUNTY.

The Kent County Medical resumed its regular meetings on October 8th with a goodly attendance. Several case reports were given by Dr. R. R. Smith.

Dr. Udo J. Wile of Ann Arbor was the invited guest, and gave a talk upon several forms of skin diseases and syphilis, basing his remarks upon clinical cases that were presented.

E. W. DALES, SECRETARY.

MONROE COUNTY.

The 18th Annual Meeting of the Monroe County Medical Society was held in Monroe on October 16th, 1913, at 2 P.M.

The following papers were read:

Typhoid Fever, by Dr. Roach, and another one by Dr. E. W. Kelley. The full report of the meeting and the reports rendered will be sent for publication in the November JOURNAL.

CHAS. T. SOUTHWORTH, SECRETARY.

MONTCALM COUNTY.

The Annual Meeting of the Montcalm County Medical Society was held at the City Hall of Greenville on October 9th, at 10:30 A.M. The following program was carried out:

1. Called to order by the President. Reading of Minutes of the last meeting.
2. Report of the Secretary-Editor.
3. Report of Delegates to the State Society.
4. Address of President.
5. Reception of Members and Communications.
6. Election of Officers.
7. Miscellaneous Business.
8. Clinics.
9. Paper—"Points and Pitfalls in Gynecology," by Dr. F. C. Warnshuis of Grand Rapids, Mich., Secretary of the State Medical Society.
10. General Discussion for the Good of the Society.
11. Adjournment.

The results of the election of new officers and the reports of the retiring officers will be prepared for publication in the November JOURNAL.

H. L. BOWER, SECRETARY.

OTTAWA COUNTY.

The Annual Meeting of the Ottawa County Medical Society was held in the city of Holland on October 14th, 1913 at 3 P.M.

The following program was carried out:

1. Call to order by President.
2. Reading of Minutes of last meeting.
3. Communications.
4. Report of Secretary.
5. Report of Treasurer.
6. Report of Delegates to State Society.
7. Address of President.
8. Election of Officers.
9. Miscellaneous Business.
10. Paper—"Decompression in Skull Fractures," by Dr. Frederick C. Warnshuis, Grand Rapids.
11. A Medical Letter from Honolulu sent by an army officer. Dr. Edw. Kremers, P. I.
12. Adjournment.

The meeting adjourned and at 6:30 the members in attendance, twenty-four, sat down to an informal dinner served in Hotel Holland.

After the dinner the members attended a public meeting in the City Hall, which was addressed by Dr. Guy L. Kiefer of Detroit, President of the State Society, who chose for his subject: "Guarding the City's Health."

H. J. POPPEN, SECRETARY.

SAGINAW COUNTY.

The monthly meeting of the Saginaw County Medical Society was held Friday evening, Sept. 19th, at he City Hall. A paper was given by Dr. W. R. Ballard of Bay City on, "The Caesarean Operation." Dr. Ballard has performed a large series of these operations, and gave us a splendid paper

Dr. Shawn, late assistant of Dr. G. W. Crile, was present, and addressed the Society on the "Prevention of Shock."

Dr. A. E. Leitch of Saginaw presented a paper on "Fractures."

Thirty-two physicians were present.

A. R. MCKINNEY, M.D., SECRETARY.

TRI-COUNTY MEDICAL SOCIETY.

The regular meeting of the Tri-County Medical Society was held in the Society's rooms, October 2d, 1913.

The program, a continuation of a symposium on Fractures extending through five successive meetings, consisted of a paper by Dr. W. B. Wallace of Manton; subject, Fractures, (a) Etiology, (b) Diagnosis, 1, simple, 2, compound, 3, complete, 4, incomplete. By Dr. B. H. McMullen, Cadillac, subject, Fractures, Continued, (a) Joint Involvements, (b) Complications.

The discussion of the two papers which followed evidenced the fact that the members of the Tri-County Medical Society are keeping abreast with the times; also that they are individual thinkers. At the close of this series of papers, the subject of Fractures will have been covered in detail. The value of the series is self evident.

A concise and interesting report of the Flint meeting was given by the delegate, Dr. O. L. Ricker. A large delegation from the Tri-County Medical Society may be looked for at the next State Meeting because of this enthusiastic report.

At the next meeting of the Society the subject of Fractures will be continued. Officers for the year 1914 will also be elected at this time.

Rudolph J. A. Oden, Secretary.

WAYNE COUNTY.

The first meeting of the Wayne County Medical Society was held Monday evening and judging from the splendid attendance the meetings are going to be very popular this year. Dr. E. W. Haass, the retiring President, presented an earnest discussion of the year past and gave a number of excellent suggestions for the ensuing one.

He urges a free discussion and criticism of papers and suggests a historical evening, the adoption of a uniform pronunciation of words at meetings and a few public meetings later, for the public.

The surprising statement was made and attested by Dr. Tibbals that there were three hundred members of this society who have contributed not even one dollar to the building fund. The reason is given that they have not been personally interviewed Dr. Tibbals says that no one can rightly tell you what you can afford to give, but that each one certainly should do his little share—give something—payable in five yearly payments if you choose.

Secretary's Report.

BY R. L. CLARK.

The total number of meetings held during the past year was 34, of which 15 were general and the balance were held by the surgical and medical sections. One hundred four was the approximate average attendance at the general meetings during the year.

There are 527 active members who have paid their dues to date and 47 delinquents. There were 44 active, 10 associate, and 3 transfer members admitted to the society during the past year. There have been 5 deaths and one has transferred to Colorado. There have appeared on the program men of state and national importance.

1. Fee splitting and the injurious effect it has on the profession and laity.

2. Revising of the constitution of the society as can be found in the Wayne County Medical Bulletin under date of November 25, 1912. The division of the office of secretary and treasurer, increasing of dues to cover necessary expenses for the coming year, etc., are some of the points of interest in the revision.

3. Auditing of all the society books by a special committee and the favorable report of the committee.

4. Adopting of a rule that the visiting nurse instill a 2% solution of silver nitrate into the eyes of the new born babe unless otherwise requested by the physician in charge.

5. The rendering of all possible aid by telegram, representatives, etc., in helping to pass laws in State Legislature of interest to the public and the profession.

6. The authorizing of the trustees to proceed to build a new auditorium at a cost not to exceed $25,000 and which is now under construction.

We should commend the retiring President and the Board of Trustees for the time and energy expended in the interest of the society. The editor should be congratulated for the good programs he arranged and thanked for the promptness in which he edited our bulletins.

For the coming year, we should begin at once to boost our society in every department. There are 200 or more legitimate practicing physicians in Wayne county not members and who should join our society during the coming year. An earnest effort on the part of each member of the society should be begun during the coming month to get as many new members as possible. Ask them to go to luncheons and meetings and extend to them the use of the library, etc. Every member signing a petition for a man to join the society should first be sure he is a proper man to become a member of this society.

There have been formed on the east and west sides of the city societies composed of prominent practicing physicians, who ars trying to increase the fees charged. They are going further than that—they are trying to establish a credit system like the various business firms have, whereby we can know the people who make a practice of jumping their doctor bills and then laughing at the doctor when he tries to collect. I believe it is the duty of every member of this society to join these societies according to the neighborhood in which he lives. I hear many present say, "A great thing, but it can't be done." Yes, you were the same ones that said we would never have a society home, but a few men banded together and proved it could be done. Every physician, for his own interest, should be found in the "do" instead of the "can't" column.

When we get into our new auditorium we should have a much larger attendance than we now have. We need the help of every physician in this county. The young physician should be helped and encouraged to join with us and become a regular attendant.

The new auditorium will cost between $25,000 and $30,000. Going directly back through the main hall of the present building a few steps lead down to the ground level, where the loby, coat and toilet rooms will be located, then on and up two or three steps, where the auditorium is reached. This is built so that it is just as accessible from the outside and with the idea of renting it for the revenue from other organizations. The library rooms on the second floor will hold about 40,000 volumes and will be found a greater convenience as time passes.

After a short talk by Dr. Tibbals, describing the new auditorium and the finances, Dr. Ray Connor, as chairman of Program Committee, Dr. Warren Babcock of the House Committee, and Dr. Hitchcock of the Library Committee reported. Dr. Longyear of the Board of Trustees urged everyone to do something to help decrease the small remaining debt.

It is regretted that Dr. Hirschman's report as delegate to the American Medical Association can-

not be published. It will be found in the library and is very interesting reading.

The regular meeting of the medical section of the Wayne County Medical Society was held Monday evening, October 6. Approximately seventy-five members were present. Dr. W. D. Ford occupied the chair, J. H. Dempster, Secretary.

The program consisted of a paper entitled "A Working Classification of the Gastro-intestinal Diseases of Infancy," by Dr. Herbert M. Rich:

One-fifth of deaths at all ages occur in children under one year of age. One-half of this mortality is due to gastro-intestinal disease. In addition to this, a large number of deaths occur from the same cause in the second year of life. Altogether this is the largest and most vulnerable single mass of mortality in our statistics.

The sub-classification of these disorders is very imperfect. Examples were given showing the growth of these divisions as the later medical sciences were developed.

The writer pointed out certain clinical entities which have been more or less carefully worked out, and urged that their prompt recognition would greatly facilitate the treatment and improve the chances for recovery. These diseases were:

Recurrent vomiting.

Pyloric spasm and stenosis.

Sensitization to egg albumin.

In addition to these there are Difficult Feeding Cases presenting the same general class of symptoms. It was proposed to divide these according to the food element whose digestion seemed most at fault. In early cases this can be determined very largely by examination of the stool. On this ground proteid indigestion, fat intolerance, and sugar intoxication were discussed and suggestions made for dietetic treatment.

DISCUSSION.

Dr. Thomas Cooley said that one of the questions constantly coming up was that concerning the differentiation between diarrhoeas due to infection and those due to food disturbances. He spoke of Dr. Vaughan's explanation, namely, that the symptoms produced were due to foreign proteins. Dr. Rich had ascribed cyclic vomiting to the presence of acetone. The speaker was not so sure of this; it was doubtful if acetone had anything to do with it. Acetone might itself be a symptom.

Dr. Rowland considered the subject under discussion one of the most important in pediatrics. He referred to the classification of Finkelstein on the basis of etiology. The first class consisted of the balance-disturbance usually produced by overfeeding of fat. Reduce fat, increase carbolyorate; then comes the class showing intolerance to sugar; reduce sugar. In the case of breast feeding reduce the number of feedings. The minimum should be three hours. The fretfulness on the part of a breast-fed baby means that the feeding interval should be lengthened.

Dr. Levy claimed that the simplicity of Finkelstein's classification of food was responsible for its popularity and for the fact that it dominated pediatrics. We were not dealing with single things when dealing with proteins but with proteins in combination with fats and so on. He claimed that the physician got into difficulties when he attempted to make a diagnosis on the condition of the stool alone. Finkelstein also stated that every child possessed a food tolerance which if exceeded the child would fail to thrive.

Dr. John E. Clarke suggested the simple Finkelstein's classification of food was responsible for illfeeding, which would result in gastric disturbance, intestinal disturbance, diarrhoea, cholera infantum.

Dr. Rich closed the discussion.

Dr. G. Van Amber Brown read a case report describing a large vesical calculus in a woman.

State News Notes

Dr. V. C. Vaughan, Sr., addressed the annual meeting of the Pennsylvania State Medical Society during the latter part of September on "The Conservation of Health."

We are informed of the marriage of Dr. Edwin M. Stanton of Detroit to Miss Annette Phyllis Elliot of Windsor on September 25th, 1913.

Dr. L. C. McMillian, a former practicing physician of Kalamazoo, but for the past two years a resident of Maryland, has returned to Kalamazoo and entered general practice in that city.

Dr. R. P. Mason of Detroit was thrown from his machine after being run into by another speeding touring car and sustained a dislocated right shoulder on September 27th.

Dr. W. J. Wilson, Jr., of Detroit, has removed his office to rooms 201-202 Gladwin building, 270 Woodward avenue. The doctor announces the limiting of his practice to diseases of the heart and blood-vessels.

Dr. Jerome J. Robbins of Petoskey will make his future home in St. Petersburg, Fla.

Dr. R. B. Coonley of Detroit departed Oct. 5 for six months' study in the New York Eye and Ear Hospital. In the spring it is the doctor's intention to study abroad and eventually return to Detroit to practice his specialty.

Dr. Fred L. Lang has begun suit to recover $1,000 from Marine City, which he alleges is due him for services rendered.

Dr. Charles Kennedy, of the "Drs. K. & K." fame was sentenced to the Detroit House of Correction for ninety days for circulating obscene literature. The Wayne County Medical Society Bulletin in commenting upon the case states:

"The Wayne County Medical Society Weekly wishes to commend the precedent established by Judge Hosmer in meting out a jail sentence to the recently convicted Drs. K. & K. It is a token of appreciation of the honest practice of medicine that we are glad to applaud."

Dr. C. D. Pullen, one of the oldest practicing physicians in Mount Pleasant, has moved to Kalamazoo.

Dr. Herbert D. Knapp of Flint has entirely recovered from his recent attack of typhoid fever and resumed his practice.

Dr. Wayne Smith, for two years superintendent of the St. Louis City Hospital, has accepted the appointment as superintendent of Harper Hospital in Detroit.

Dr. Frank Smithies, formerly of Ann Arbor and recently of Rochester, Minn., has established an office in the Peoples Gas Building in Chicago. He

will limit his practice to the diagnosis of medical and surgical diseases of the digestive system and laboratory examinations of gastro-intestinal specimens.

Grace Hospital in Detroit is to have a new $40,000 service building. The Superintendent, Dr. Babcock, has been instructed by the hospital board to immediately proceed with the construction. The building will be located at the rear of the hospital and will have a frontage on Alexandrine and Brush blvds.

The new laboratory of the Board of Health of Kalamazoo is completed and city chemist George White and Dr. C. H. Clark, state dairy and food inspector, have taken possession.

The freshman class of the medical department of the University numbers over 100, against a registration of 85 of last year. There is a similar increase in registration in all the departments of the University and it is estimated that the total number of students in Ann Arbor is more than six thousand.

The council of Flint has passed an ordinance prohibiting employers from permitting employees suffering from tuberculosis or "any infectious or contagious disease" to work in the same room with other persons. To be able to return to their employment a physician's statement is necessary.

A movement is on foot for the doctors of Cheboygan to establish a hospital in that city.

The University of Michigan health service established by the university at the opening of college this fall is expected to put Michigan on a par with other progressive universities in caring for the health of students.

Three physicians will comprise the staff of the service, Dr. Howard Cummings, in charge, Dr. C. B. Stouffer, for those students who prefer homeopathic treatment and Dr. Elsie Pratt, formerly of Denver, Colo., who will care for the women students of the university

"The object of the service is to raise the standard of health among the students, as well as care for the sick," said Dr. Cummings today. "We expect to have compulsory examination for every freshman student, although that rule may not be enforced this year. The physical directors will examine each freshman before he is allowed to take gymn work, which is also compulsory. It will be the duty of these physical directors when they find students who are not normal, or in whom they believe they have discovered an incipient disease, like tuberculosis, to report the matter to us immediately."

The Annual Dinner of the Academy of Medicine of Grand Rapids was held in the Peninsular Club on Wednesday evening, Oct. 1, 1913, with some forty-six doctors in attendance. After a delightful menu the following program of toasts were responded to under the able direction of the toastmaster, Dr. Burton R. Corbus:

Retiring President's Address—Dr. A. J. Baker.

A Voice from the Ward—Mr. Forris D. Stevens.

Impressions of European Medicine—Dr. Udo J. Wile.

The Doctor and Social Service—Rev. Alfred M. Wishart.

The Doctor's Library—Dr. R. R. Smith.

A most enjoyable time was had and the evening passed exceedingly rapidly as well as pleasantly.

The Semi-annual Meeting of the Board of Registration in Medicine was called to order in the State Capitol at Lansing, Thursday, October 14th, 1913. with all members present. Thirteen applicants for registration presented themselves for examination, twelve as medical practitioners and one drugless healer.

The Board was called to order by Secretary Harrison, and Dr. Alvord was chosen temporary chairman. Sixty-seven ballots were taken for president, Dr. Nyland of Grand Rapids receiving four votes on practically every one, and various other members of the Board receiving six in turn. An adjournment was then taken until nine o'clock Wednesday morning when thirteen ballots were taken; Dr. Nyland receiving four on each ballot; Dr. LeFerve receiving six on seven ballots; Dr. Nafe receiving six on six ballots.

A motion was then made to adjourn indefinitely, which was declared out of order by the Chairman.

A general discussion was then held followed by a recess of five minutes, after which the seventy-first ballot was taken, resulting in seven votes for Dr. Geo. L. LeFerve of Muskegon and three for Dr. Alvord of Battle Creek. Dr. LeFerve was then declared elected and took the chair.

Two ballots were then taken for secretary, resulting in six votes for Dr. Bret Nottingham of Lansing, and four votes for Dr. B. D. Harrison. Seven votes being required under the statute for election, and it being demonstrated that no one could receive the necessary number from the present Board, a motion was adopted to proceed with the regular order of business.

The President appointed the following committees:

Standard of Colleges—Alvord, Nyland, Nottingham, Nafe.

Registration—Dodge, Hume, Maynard, Nottingham.

Legislation — Cornell, Maynard, Nottingham, Dodge.

Examinations—Burr, Nottingham, Nafe, Maynard.

Auditing—Nafe, Cornell, Dodge, Burr.

There being no prospect of arriving at a choice for secretary the board adjourned without electing this officer. About two hundred applications for license from drugless healers were filed.

Book Notices

The Diseases of Children. By Henry Enos Tuley, M.D., with one hundred and six engravings, and three colored plates. Second Revised edition. Cloth. Six hundred fifty-five pages and index. Price $5.50. C. V. Mosby Company, St. Louis, Mo.

The practitioner and student are presented with this, the second edition of a work that has been especially written for them. This revision has enhanced the value of this work, and has enabled the author to incorporate the new principles and teachings that have been accepted since 1909. New food formulas have been added, and methods for the production of certified milk are given in full in the appendix. The chapter on the skin diseases of children is complete, and bound to be of valuable aid in the treatment of these conditions. The plate depicting the buccal exanthema in measles (Koplik's Spots) is the first illustration to our knowledge in a text book that shows the spots as they appear in the mouth.

The work is eminently practical and may be commended as one that will satisfy the needs of both practitioners and students. By reason of this it should increase its success and command a cordial reception.

A Treatise on the Diseases of Women. For Students and Practitioners. By Palmer Findley, B.S., M.D., Professor of Gynecology, College of Medicine, State University of Nebraska; Gynecologist to the Clarkson Memorial Hospital and Douglas County Hospital; Fellow of the American Gynecological Society; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the Chicago Gynecological Society. Octavo, 954 pages, illustrated with 632 engravings in the text and 38 plates in colors and monochrome. Cloth, $6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

This new work offers a complete exposition of the subject of diseases of women, and brings out many points of view not generally emphasized in books on gynecology. A very important feature is the full discussion given to conservative methods of treatment, such as douches, baths, exercise, massage, diet, dress and tampons, which rarely receive the consideration which their importance merits, either in books or in actual practice. Separate chapters are devoted to Non-operative Methods of Treatment, Hygiene and Dress, Preparation of Patient for Operation, Preparation of Operating Room, Field of Operation and Surgical Utensils, Choice of Anesthetics, Diet, Post-operative Complications and Care of Patients after Operation. Diagnosis has been placed on an anatomical basis, for it is pre-eminently true of diseases of women that the making of a diagnosis is in large part the recognition of the morbid anatomy. Another valuable feature is the presentation of certain subjects which may be considered as on the borderline between gynecology and obstetrics, for the separation of these two subjects is an illogical one. The book is very rich in its pictorial department, for in the text there are 632 engravings, besides 38 plates, many of which are colored. They have been inserted wherever it was possible to make clearer the point under discussion.

This work is a welcome addition to the books treating on this subject and merits a place with the best of them. A useful, reliable and practical reference work for every doctor. It is commended as the best recent work upon the subject.

Obstetrics. A Manual for Students and Practitioners. By W. P. Manton, M.D., Professor of Obstetrics and Clincal Gynecology, Detroit College of Medicine, Detroit, Mich. Second edition, revised and enlarged; including selected list of State Board Examination Questions. 12mo, 292 pages, with 97 engravings. Cloth, $1.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This little volume fills admirably the twofold purpose for which it was created, namely, a convenient manual by which the physican can quickly refresh his memory, and an excellent means by which the student can review his course on obstetrics in preparing for examination. The questions appended to each chapter will be found a strong stimulus. The revision for this new edition has been so thorough that it has amounted virtually to a rewriting, so that the book is really a new one. It is exceptionally well illustrated, and is typographically all that could be desired. Its large circulation is apparent in the unusual value which the purchaser receives.

We feel that Dr. Manton's many former students in this state will want this excellent manual and will prize its possession on account of their former associations with the author.

The Principles and Practice of Gynecology. For Students and Practitioners. By E. C. Dudley, A.M., M.D., Professor of Gynecology in the Northwestern University Medical School, Chicago. Sixth Edition, thoroughly revised. Octavo, 795 pages, with 439 illustrations, of which many are in colors, and 24 full-page plates. Cloth, $5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

Dudley is unquestionably one of the strongest books on gynecology in the English language. Ever since its original publication, fifteen years ago, it has occupied the foremost place among American works on this subject, and the appearance of this new edition serves to strengthen it in this leading position. It's splendid record is evidenced in the complete originality of its elaborate engravings and plates, a feature possible in very few publications. Each one is designed to illustrate some special point in the text, and numerous series of drawings explain operative procedures as they take place, step by step. In its pictorial department the work stands unrivaled. The arrangement of the book is another excellent feature. The subjects are presented in pathological and etiological sequence, so that the reader will have constantly before him the physiological and pathological unity of the reproductive system, and will see the correlation of the morbid processes to each other. The text shows that it has had thorough revision throughout. Several chapters have been entirely rewritten, and many new illustrations added. In its latest issue this standard work is well equipped for a new period of usefulness as the recognized authority.

To own this book, to study its teachings, to familiarize oneself with its principles and then to apply this knowledge in one's daily work will enable such a person to render to his patients services that will not only be appreciated but that will endow him with the ability of caring for his gynecological cases in keeping with the practice of the leading clinics in the land.

The Protein Split Products in Relation to Immunity and Disease. By Victor C. Vaughan, M.D., LL.D., Dean of the Department of Medicine and Surgery of the University of Michigan, Victor C. Vaughan, Jr., M.D., A.B., in charge of the Tuberculosis Work of the Detroit Board of Health and J. Walter Vaughan, M.D., A.B., junior attending Surgeon to Harper Hospital, Detroit. 12mo, 476 pages illustrated. Cloth, $3.00, net. Lea & Febiger, Publishers, Philadelphia iand New York, 1913.

This work sets forth the studies and researches of many years in a department of medical science which is now attracting universal attention and intense interest. Modern laboratory methods have made it possible to inquire into the means by which the normal organism defends itself from pathogenic agents, the condition of each before, during and after infection, and the general results of the process. An understanding of these problems at once conveys a new insight into physiology and pathology, and creates new and distinct methods of diagnosis, therapeutics and prophylaxis. Among the subjects of prime importance which this work discusses may be mentioned proteins and the infectious diseases; protein sensitization and bacterial immunity; vaccines, toxins and bacterial cellular substances; cleavage of proteins into poisonous and non-poisonous parts; the action of the living bacillus, the dead bacillus and of the poisonous split product; the production of active immunity with split products of the colon bacillus; the tubercule bacillus; the relation of tuberculo-sensitization to immunity; anthrax protein; pneumococcus protein; protein sensitization and the physiological action of the protein poison; protein fever; specific ferments of the cancer cell; the phenomena of infection; vaccines and sensitization. The large number of im-

portant and interesting topics, only partially mentioned above, which this volume treats, makes it an invaluable part of the equipment of the physician who would be modern in his methods and abreast of the most recent thought in medicine.

From time to time in the years that are passed many of our members have been entertained at the meetings of our local and state societies by the papers presented upon this subject by the senior author and in recent years by Dr. V. C. Vaughan, Jr., and Dr. J. Walter Vaughan. We have all profited by reason of this and many of us have longed to have the authors' theories, experiments, investigations and deductions condensed or rather compiled in book form so that we might better be enabled to become more conversant with the scientific features and practical application of them. Our desires have been complied with in the issuance of this valuable book. We urge the purchase of this volume by every reader and then if he will but familiarize himself with its contents we feel assured that he will be enabled to more readily keep abreast with teachings of our present day theories regarding immunity and disease and thereby become an abler physician.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery and their allied specialties. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. Cloth, pp. 303. Vol. III. 23rd series, 1913. J. B. Lippincott Company, Philadelphia. Price, $2.00.

To him who desires to possess a volume that contains a series of papers that represent the teachings and progress of present day medicine we commend this number of these recognized valuable clinical reports. There is so much that is good in them that the reviewer cannot even commence to note or comment upon any given article. The volume as a whole tends to increase the value and reputation of the series, and this should appeal to general practitioners and specialist alike.

Essentials of Prescription Writing. By Cary Eggleston, M.D., Instructor in Pharmacology, Cornell University Medical College, New York City. 32 mo. of 115 pages, W. B. Saunders Company, 1913. Cloth $1.00 net.

This little volume is intended to provide the student in medicine with a succinct, yet sufficient treatment of the subject of prescription writing and to prepare him to construct a grammatic and proper prescription to fill any need. The work is a crystallization of the author's experience in teaching the subject.

It is such a valuable little volume and contains so much that is of daily value to the practitioner that we cannot help but recommend it to them in addition to the students.

Diet and Health in Disease. By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Fourth edition thoroughly revised and enlarged. Octave of 857 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $4.00. Half Morocco, $5.50 net.

The authors and publisher present the profession with the fourth revision of this valued work that is intended to meet the needs of the general practitioner, hospital interne, medical student and trained nurse. It is a work that is entirely practical and imparts valuable information as to how to feed and what to feed a patient. It is so practical that even the busiest practitioner may by rapid reference seek and secure desired assistance.

The changes in opinion that have occurred in recent years regarding diet and the health and the new facts as to food and metabolism will be found in this edition. A chapter has been added upon the mechanism of digestion.

All in all the work is thoroughly in accord with the progress that has been made in this line and consistent with the opinions and teachings of recognized authorities in this subject.

No work of recent publication is more thorough or more complete. We unhesitatingly declare this volume as essential to the working library of every doctor. It should be frequently referred to in your daily work.

The Elements of Bacteriological Technique. By J. W. H. Eyre, M.D., Director of the Bacteriological Department of Guy's Hospital, London. Second Edition, rewritten and enlarged. Octavo of 518 pages, with 219 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $3.00 net.

The Saunders Company have placed before the profession this second edition of this volume, and it is a distinct pleasure to acknowledge the privilege of expressing our opinion of it. We can do no other way than to commend this work to our readers and to laboratory workers. It is a book filled with the various methods at present used in the study of bacteria and the elucidation of such points in their life history as are debatable or still undetermined. Some of these methods are new, others are not; but all are reliable and capable of giving satisfactory results even in beginners' hands. It contains, we judge, the technic employed in the author's department in Guy's Hospital

It is a work that undoubtedly will find much favor with the laboratory workers of this country and with him who is employing laboratory means and findings in his regular practice. We find nothing to criticize, but much to commend. The publishers' name conveys in itself typographical, illustrative and mechanical perfection.

A Clinical Manual of Mental Diseases. By Francis X. Dercum, M.D., Ph.D., Professor of Nervous and Mental diseases, Jefferson Medical College, Philadelphia. Octave of 425 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $3.00 net.

This is a volume dealing with mental diseases in such a way as to be entirely practical. Simple yet thorough and based upon clincal pictures so that one is readily able to become conversant with the various forms and stages of mental derangements and recognize them in their early stages. The author imparts to the reader a commendable arrangement of the text and thus enables the practitioner to readily grasp a working knowledge of mental diseases and what to do under given conditions, when to commit and when not to commit a patient to an asylum, and how the patient should be treated in his own home or elsewhere outside of an institution.

It is a work that will appeal to him who is not disposed to delve deeply into the problems of psychoanalysis or psychiatry. It deserves a kindly reception for it supplys a distinct need. The author's reputation in itself is sufficent endorsement.

Bulletin of the State Board of Health of Kentucky. Edited and published by the State Board of Health of Kentucky, being the compiled reports

for the years of 1910 and 1911. Bound in cloth, 609 pp.

This annual report is thankfully received. In it is contained much information for him who is interested in what is being done in Kentucky for the conservation of public health. A valuable report and reference work for health officials.

Medical and Surgical Reports of the Episcopal Hospital of Philadelphia. Vol. I, cloth, 406 pp. Edited by Astley P C., Ashhurst, M.D.

This report contains the annual statements of the hospital and its various departments, and in addition the papers of certain of its staff members. We feel that the expense and labor entailed in publishing this volume is not justified. The medical and surgical articles contained therein would be of more benefit to the entire profession if imparted through the mediums of existing medical journals. We should very much dislike to see our hospitals adopt this plan as we cannot conceive of any marked benefit that will accrue therefrom.

Miscellany

Medical Milk Commissions and Certified Milk.

The first bulletin in the new departmental series of the U. S. Department of Agriculture is a contribution from the Bureau of Animal Industry entitled Medical Milk Commissions and Certified Milk; this is a revision of a previous bulletin on the same subject.

The organization and objects of the first milk commission are described and the origin and meaning of "certified mlk" are set forth. The word "certified" has been registered in the U. S. Patent Office and may only be used by a duly organized medical milk commission.

The first milk commission was organized in 1893. Since that time over 60 commissions have been established, but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk and the daily production is nearly 25,000 gallons, an increase of 300 per cent. in five years. While this seems a remarkable increase, it should be remembered that only about one-half of 1 per cent. of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremitting attention to details.

In 1907 the American Association of American Milk Commissions was organized. The methods and standards for the producton and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin.

A Layman's Advice on Organization Methods

Suggestions of value to our medical societies can often be obtained from civic organizations. In a recent issue of *Suburban Life* Mr. H. J. Howland entertainingly and instructively recites his experiences as president of the Civic Association of Montclair, N. J. "The point," Mr. Howland says, "is to begin with something definite and not too hard, something that needs not discussion but doing. If you have a civic association or improvement society [or, he might have added, a medical society] there is one thing you must avoid like the plague—the adopting of resolutions. The resolution habit is worse than drink, worse than the opium habit. In my brief and inglorious career I put many resolutions to vote, saw them adopted with enthusiasm, and then decorously interred in the archives until I shuddered at the thought that New Year's Day was coming. Do not pass resolutions. Get out and do things." Better advice to our medical organizations could hardly be conceived. Medical societies have from time immemorial been afflicted with the resolution habit. Simply passing resolutions never did anything. If there is something that ought to be done in city, county, state or nation, let us not pass resolutions, but if it can be done, let us go and do it.—*Jour A. M. A.*

Proprietaries in Great Britain.

The National Insurance Act under which many now receive practically free medical service provides that, under certain conditions, the physicians who work under the act, may receive some of the funds set aside for the purpose. This has tended to make unpopular the prescribing of expensive proprietaries rather than the cheaper official preparations. Those medical journals which derive a large portion of their advertising income from proprietary medicine advertisements are not feeling happy. These publishers are between the devil and the deep blue sea. If they come out openly in favor of prescribing high-priced proprietaries in place of the lower-priced official drugs, they are asking their subscribers to do something which is not only unscientific, but also contrary to the financial interest of the physicians working under the act. (Jour. A. M. A., Sept. 13, 1913, p. 872.)

The Friedmann Institutes.

The Friedmann cure for tuberculosis is utterly discredited. All reliable reports regarding the treatment of patients by Friedmann's method seem to show either that it is actually injurious or else that it is less efficient than other well known and less dangerous means of treatment. The scheme of floating Friedmann institutes in different states successfully evades any reprisal on the part of the federal government. It therefore devolves on the various states to take such action as is necessary to prevent the heartless exploitation of the unfortunate consumptives within their borders. (Jour. A. M. A., Sept 13, 1913, p. 874.)

Diphtheria Antitoxin as an Immunizing Agent

Diphtheria antitoxin is quite generally used as an immunizing agent. Usually a dose of 500 units is given to all the children in a family in which a case of diphtheria has developed. In such instances no attention is paid to the possibility or anaphylaxis on later injection or diphtheria antitoxin. Indiscriminate immunization by the injection of serum is not advised by any writers on this subject. To avoid serious results from anaphylaxis in cases in which known immunizing doses have previously been given, it is customary to inject first a small dose of from 5 to 8 minims, and if no symptoms develop, to follow this within an hour with the full dose which it is desired to inject. (Jour. A. M. A., Sept. 13, 1913, p. 885.)

The JOURNAL of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XII GRAND RAPIDS, MICHIGAN, DECEMBER, 1913 No. 12

Original Articles

SHALL THE TOTAL DEATH RATE IN CANCER BE ASCRIBED TO MALIGNANCY?*

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During the past few years malignant disease has been the subject of serious study and investigation from both laboratory and clinical sources. Everywhere evidence is accumulating to show the persistent and widespread efforts in pursuit of further knowledge on all sides of the cancer question, with prospects of soon reaching results never before equaled.

Etiologic and biologic questions of cancer, with problems of immunity, heredity and transplantability, as well as some extremely radical operative measures for advanced cancer, are a few of the phases of the subject now receiving the attention of specially qualified students from these various departments.

To read the voluminous literature detailing the progress of this work cannot fail to leave in the minds of the most skeptical some hope that the right trail at last is being blazed; and that sooner or later we may hope to see malignant disease classified with diseases whose causes are now known and whose prevention and cure are possible.

With the immense amount of work already done to bring to light some of the secrets and mysteries of cancer one may, with some show of reason, seriously doubt the possibility, in an effort such as this, of adding anything further to the subject of material interest or advantage.

Be this as it may, it is perhaps wisest to present, without excuse or apology, regardless of its age, or the amount of work done thereon, any subject concerning the profession, especially if that subject is a disease with a death rate as appalling as that in cancer. No member of the profession should, on any occasion, be reluctant in raising his voice to utter well formulated and mature opinions on any disease that has so long puzzled and mystified the world as cancer; and whose annual death rate remains unchecked and now equals, if not surpasses, that of the most deadly wars.

* Read before the Section on Surgery, 48th Annual Meeting M. S. M. S., at Flint, Sept. 4-5, 1913.

Long experience in the work of any physician, surgeon or other specialist, must have justified conclusions of great import in the treatment of cancer, and at the same time very essential to this work as a whole; and it is with just this point of view in mind this paper is presented. It in no way deals with statistics farther than to show their unreliability, nor is it in any sense a historic review of any of the complex questions of cancer. These matters are scrupulously left to those specially trained for the work and through whose efforts only will finally be solved.

There is a side to cancer not familiar to the student of research; certainly less well known to him than to the practitioners of general medicine and the specialties. It is to the members of the profession, who first see the cancer patients and the precancer lesions that this statement will more likely appeal and in whose power rests the possibility, if such exists, of cancer cure; it is for those among us that this subject is thus presented, and for us to remember that it is not in the hands of the laboratory or research worker that the present management of cancer can be changed an *iota,* but in our own that the future and the destiny of these unfortunate victims unmistakably and surely lie; and further to make the plea that under the widespread indifference generally manifested towards the cancer patient today "malignancy" cannot be assigned always as the cause of death.

While considering cancer from this point of view, we are at the same time mindful of the fact that the diagnosis finally, with the specific therapy of cancer, must come through knowledge acquired from experimental and laboratory investigations. But while this knowledge is being acquired, emphasis must be placed on the advantages to be realized by a judicious and intelligent use of the knowledge already in hand. By the application of such knowledge as we now possess, untold numbers of cancer deaths may be prevented. It is stated that 75,000 cancer deaths occur annually in the United States, and that a half million occur in this same time in the civilized world.

If the causes of cancer were to be known tomorrow and a specific cure immediately followed, a generation would pass before such knowledge would be fully accepted by the profession as a whole; and perhaps a much longer

time than this before the world generally would accept it. The countless number of inevitable cancer deaths sure to follow in the near and remote future should cause serious thought in the minds of the medical world; should urge us, regardless of what research may accomplish, to attack this proposition with renewed energy and determination at short intervals.

To cure cancer we must prevent cancer; and to prevent it, very intimate knowledge of the forerunners of cancer is necessary. It has been shown again and again that symptoms of malignant disease have another important, if not a new meaning; and that meaning is that surgery now has no place in the treatment. This, it would appear, applies perhaps more particularly to malignant growths hidden from view than when situated elsewhere; but would doubtless serve a better purpose if applied to malignant neoplasms regardless of kind or location.

The most innocent changes in senile skin, within or near the orifices of the body, or at any point for which cancer shows a predilection, should be thoroughly appreciated, and subjected, even when their nature is in doubt, to that and the only treatment, we believe effective in cancer.

Our present idea regarding the local origin of cancer justifies the belief that surgery will, when put to timely use, effect a cure in a larger per cent. of the cases; and the more early the indications for surgery are recognized, the less extensive and mutilating will the surgery be. It is, therefore, not further development in technical operative work that is needed, but the earlier recognition of indications for surgery, and necessarily less extensive surgery; surgery that carries with it less fear than the cancer itself, and a lower operative mortality than now attends many surgical operations.

No criticisms are directed at the major operations *per se* for advanced cancer, as anything less than these operations, under such circumstances, is worse than useless. The contention is that they are often needless if the diagnosis can be made sufficiently early; that minor procedures will very often suffice, if timeliness can be given first consideration, and regarded always as the prime feature in cancer treatment.

A very interesting feature of cancer study will be found in reviewing the work done on the blood and urine of cancer patients. The "reactive property" of anaphylaxis, the antitryptic reaction which was positive in ninety per cent. of the cases as shown by Meyer and Bergmann, and the *precipitin* reaction by Freund, have all shown themselves to be of confirmatory diagnostic aids at least, and doubtless will point the way to more exact and reliable methods of diagnosis as the work progresses.

If the present deplorable status of malignant disease is due to mismanagement, carelessness or ignorance, no one should exhibit a keener desire to know it than the physician. We can advance only when our mistakes are acknowledged; when we place the responsibility where it belongs. Evasion and shifting the responsibility has been the rule too long already. The uneducated laity is deplorable enough and contributes much to our failures in cancer treatment; but if we will renounce the policy of waiting which has so long governed, and now largely governs us, for one that will determine early information on cancer or the precancer lesion, and will provide or compel surgical aid without delay, results in cancer treatment will soon be improved.

The operating surgeon knows that it is not "malignancy" that destroys the victim of cancer always, but that it is procrastination, that "thief of time" born of a habit whose reward is failure and disaster.

Out of a personal experience covering something more than a dozen years in the operative treatment of various forms of malignant disease, perhaps less than ten per cent. of the cases are now living. In fully ninety per cent. of these cases the condition when they first came for operation, showed how unmistakably these lives had actually been sacrificed. Call this ignorance, carelessness or what you will, the truth is, that a more fitting tribute could be found in the words of Sherman's definition of war.

For this lack of education, want of proper training, or negligence on the part of the profession, and its failure to do its duty in dealing with this foe of mankind it is not the purpose of this paper to prescribe a penalty; but more particularly to raise a voice against the cruel fate to which many unfortunate individuals are thus doomed. The education of the public will not be without its reward; the widespread effort now being exerted here and elsewhere by public lectures, publications, etc., should be unceasingly encouraged; but an educated laity and an uneducated profession is like the house built upon the sand. Educate the physician in all that the term implies, and he will in turn, with less effort, less time and less money, educate his patient more thoroughly and satisfactorily than can otherwise be done.

Whether cancer is increasing as contended by some is not the question here, but we do know that it is not decreasing. Nineteenth and twentieth century medicine is furnishing much for the future records of history, but it does not appear, up to the present at least, that achievements in the cure of cancer will prove a great legacy to the needs of posterity.

The chief points of interest to be considered in this connection are, the cancer bearing age,

the localities more often the seat of cancer, the conditions under which it arises, the precancer lesions in its various forms, the types of trauma or irritation producing malignancy, and above all, the time element in treatment. These points fully appreciated in all instances will not only prevent and cure cancer under most circumstances in which we now fail, but will relegate "methods" of treatment to a place of secondary importance.

In some instances malignant growths make their appearance, metastasize and reach a stage beyond surgical help, before the exhibition of a single symptom. No amount of care or education on the part of the people or training on the part of the profession can ever hope, with our present knowledge of cancer, to effect cures in these cases. Fortunately, such cases are comparatively rare, but provide no excuse for overlooking those growths accessible to palpation and within the range of vision.

If more attention in the past had been devoted to urging the importance of the time element in diagnosis and the advantages of early surgery, rather than detailing the "methods" in late surgery, the mortality in cancer would be lower than is now the case.

We can no longer ignore the small innocent tumor of the female breast, the suborrheaic condition of the face and lips recently described by Montgomery and Culver[1], irritation of the bile tract, the abraded and ulcerated cervix, the bleeding uterus, "indigestion," keratotic spots on the skin, moles, warts or lesions, whenever situated exhibiting the least inclination to changes of whatever kind. Especially important are these in people about middle life or older, and should on the least irritation or disturbance create in the physician's mind at once the suspicion of beginning malignancy. If the presence of other small lesions create apprehension or fear, whether significant or not, they may be removed as this will allay all anxiety and be a source of no further annoyance or afterthought.

Given an instance such as any one of the conditions mentioned may produce, the relation of physician and patient is often a trying one. Some tact and judgment on the physician's part must be exercised to put such a proposition rightly before the patient. If the possessor of a leukoplakia or other lesion of the tongue can be made to appreciate the utter futility, not to mention the immediate danger, of the most sweeping operations to effect a cure when used as a last resort, and that a very limited surgical operation gives, without danger, every hope of a cure, if employed early, certainly a decided step in the prophylaxis of cancer will be made.

One physician, or a small per cent. of the physicians of a community, who are qualified, both by nature and education to rightly present a case of this kind to their patients are not sufficient to lower cancer mortality in that community. A patient for the first time in the hands of wide awake medical men who by training and experience are quite able to make a diagnosis, have at the same time great difficulty in convincing an individual in the possession of good health, who is vigorous, strong and able-bodied, that an innocent little growth of but few days or weeks standing, situated on the tongue, lip or elsewhere is, or could possibly be, a serious matter. For an endorsement of his own opinion, the patient often seeks for medical advise and is not disappointed; he finds the medical man who will endorse his own opinions or notions, and satisfied with the opinion which confirms his own, the possessor of the innocent little lesion submits to having the latter cauterized, partially excised and otherwise tinkered with, until the last chance for a cure is gone.

It takes, therefore, the whole community of medical men all trained alike with courage to express convictions, with a willingness and determination to endorse each other's opinions if cancer treatment is to meet with success. This is the only safeguard that will prove effective against the cancer patient wandering from post to pillar, and from one medical man to another, finally reaching and being consoled by that member of the profession whose work today is a curse to the community and a disgrace to medicine.

The precancer lesions on the body surface may escape notice until the safest time for treatment is passed. Montgomery and Culver state that seborrhea of the lip, may extend from one angle of the mouth to the other, and the chances for overlooking it even at this time are very great. This is true of many other precancer lesions and to recognize them early enough, the cancer age, the more common cancer sites, kinds of trauma and irritation causing the lesion should be carefully considered.

The advice laid down in the early history of appendicitis when the death rate in this disease was much higher than now, may be used in the diagnosis of the precancer lesion. Suspect malignancy in all of there conditions until the real nature of the lesion is finally disclosed.

There is no gainsaying the fact that a certain amount of education among the people along these lines will contribute much to our aid in curtailing the ravages of cancer; but it is the physician who, for reasons difficult to explain, carries the patient along for months that is the power for evil. It is just this very bad advice that the report of the Cancer Commis-

1. Ann. Surg. Feb. 1912.

sion of Philadelphia says that most cancer patients receive; it is this advice which quiets the anxiety and fear of the individual until his last chance of recovery is passed. This advice from a medical man, be he ever so incompetent is just as weighty, forceful and far-reaching in the minds of the sick, as is the counsel of the wisest physician.

If we will but educate ourselves to believe that the early diagnosis followed by the right treatment is the only doctrine worth preaching and practicing, and that further than this we disclaim all responsibility the odium for our dismal failures of the past to more satisfactorily deal with malignant disease may, in part at least, be removed.

Under this regime the dread of cancer would become lessened; the dread and fear of the operative procedures would necessarily disappear, and the ultimate results of treatment prognosticated with greater assurance and certainty. The difference between an operation necessary for a cure while the cancer is local or in the precancer stage, and that demanded or indicated for late or disseminated cancer is the same as between an operation with a high mortality and an operation with no mortality at all. No operative procedure, in America at least, can ever hope to win its way to a permanent place in the list of sane procedures with an operative mortality of twenty per cent. or higher; especially is this true when we know that a timely substitute without danger or objectionable sequel will have no immediate mortality and a higher percentage of ultimate cures.

The duties of the physician to the community in which he lives are in this matter plain enough; his violation of this trust should constitute an offense punishable by law just as are derelictions in less important matters. It is a proposition understandable by every one and needs only a start in the right direction to finally bring about the desired results.

Since a few important features as to the causes and methods of dissemination of cholera, small-pox, yellow fever, typhoid fever, malaria and tuberculosis have become known, timely action by the guardians of public health and medical men generally are sufficient to prevent any serious damages from an outbreak of these diseases. Prompt interference in acute abdominal diseases, formerly with a high death rate, are among the satisfactory and successful procedures today. Early evacuation of pleural effusions would leave few indications for extensive thoracotomies or mutilating operations of the Schede and Estlander type.

Sufficiently early diagnosis of lesions of the cervix *uteri* will call for fewer "radical abdominal operations" for cure of cancer in this organ; and less frequent excisions of the tongue and removal of facial bones, with extensive and dangerous neck dissections for lingual and lip cancer.

The ease with which cancer elements may find their way through the lymphatics to remote parts, or the "permeation theory" of Handley, are features of cancer which do not justify delay in the treatment under any circumstances. The curative effect of surgery hinges almost wholly upon the time element and a failure to cure is not a reflection upon the operation nor the operator, but to those influences, be what they may, that postponed and delayed the operation.

Our want of knowledge on many points of the cancer question is a handicap of the treatment, but perhaps much less of a handicap than is provided by our indifference and lack of appreciation of the aids in treatment we already possess.

It was the writer's privilege recently to hear the President of the Wisconsin University in an address to the alumni of this institution say that: "We know enough of medical science to banish from our midst many diseases that now prevail, if such knowledge could be put to immediate and effective use; that twice the yield from lands throughout the country would be realized if what is actually known of agriculture could be advantageously employed; and that the science of eugenics is already in a position to measurably improve the human race if practical application of its tenets and teaching were possible."

Verification of these statements are not needed; their accuracy can scarcely be questioned, and are nowhere more fully attested than in the daily observations of every wide-awake doctor.

The "radical abdominal operations" for uterine cancer with its high immediate mortality even in good hands; the mutilating breast amputations with their inevitable and permanent deformities, the extensive neck dissections with removal of facial and jaw bones for cancer of lip, tongue and mouth, have been made necessary, not for the cure of malignant disease originating in these localities, but for the fatal and unpardonable mistake in allowing the disease to reach these remote tissues. If we were answerable to the law for this, the greatest of all errors possible to commit in the discharge of professional duty, text-books, monographs and other contributions to medical literature would soon be rewritten.

Bloodgood has said that the removal of all innocent mammary gland tumors will cause to disappear certain types of malignant tumors. This is no more true of the innocent breast tumor than it is of other innocent lesions so frequently found within the mouth, on the lips, the cervix *uteri* and other places of the

body and which are, during certain ages, very prone to develop cancer.

When miscrosopic and histologic studies reveal the fact that the surgeon's work has removed a healthy uterus, except for simple erosions or ulceration of the cervix, ordinary moles, warts or other skin neoplasms or lesions, he is more than likely of the opinion that needless work has been done; that measures out of all proportion to the actual requirements in such cases have been executed; when as a matter of fact the only prophylactic measure against cancer that we know is embodied in just these early minor operations. This is the operation with no mortality, even without danger, and to which the patient will not object. Is it conceivable how many thousands of malignant neoplasms of all kinds the surgeons of any community may have prevented even in a single decade by these operations?

The wholesale and indiscriminate attack on all such lesions, regardless of any activity they may display, their location and history, or age of the patient is, or course, without warrant; this routine would soon bring the work into disrepute, and class it with other operative procedures whose only claim to consideration is popularity.

The past and even present teaching is to the effect that the symptoms of cancer should be understood and early detected. This will, when appreciated, be a step in advance of the position we now occupy, but it is not enough. The presence of symptoms in a cancer is often a signal that treatment is useless. *The position of advantage in cancer treatment can be reached only before symptoms of malignant degeneration appear.* Surgical interference later than this calls for measures as terrifying to the average patient as the cancer itself; and leads often to the patient's decision against treatment, which is a course the surgeon himself should perhaps more often advise.

The process of ulceration in many little neoplasms of the skin occurs so early sometimes, and their malignancy is so extreme, that surgery can offer nothing in treatment. To this type of malignant growth belong the *melanosarcomas* generally originating in moles.

Bloodgood collected a series of sixty-five operated cases of this type showing a mortality of one hundred per cent. If moles are innocent neoplasms, as their long and quiet existence previous to ulceration would suggest, and the most minor surgery will, during this time, eradicate them, and that after inflammatory and ulcerative action takes hold of them, the most extensive surgery will fail to do as much, it is manifestly unjust to charge the death rate under these circumstances to "malignancy." One day these little lesions are local, harmless, and amenable to the most minor surgery; the next day they are malignant, disseminated as by the four winds to points out of reach of the surgeon's scalpel and should not be subjected to surgery at all.

Sampson has said that the bleeding uterus, if due to cancer, is a warning that operation is useless. The diagnosis, therefore, of early uterine cancer may not be a cause for rejoicing, but of extreme regret, that it could not have been established sooner. The insidious nature of cancer in this organ, sometimes reaching an advanced stage of the disease before attention is called to it, would suggest the propriety of examinations of women, if such were possible, at short intervals especially during the cancer bearing age.

Taylor[2] has shown that seventy-five per cent. of patients with cancer of the uterus die without any operation, except possibly cauterization for hemorrhage; and that of the remaining twenty-five per cent. which reach the surgeon, many of them come so late that certainty as to the outcome of the operation cannot be prognosticated. Seventy-five per cent. of cancers of the alimentary tract come for operation after all hope of a cure is passed; and less than five per cent. of the operated cases live out the five year limit.

There is supposed to be 225,000 cancer patients in the United States today. If this is only approximately correct, it would be interesting to know what per cent. of this number would be cancer free, if in all, the precancer lesion, or even the earliest malignant changes could have been early recognized, and promptly subjected to appropriate treatment.

In a moderate personal experience with malignant disease involving different portions of the body which were operated on previous to 1908 more than ninety per cent. roughly estimated, are dead. Out of a half dozen cancers of the tongue and floor of the mouth, in which complete tongue excisions were made in three cases, partial tongue excision in one, three lower jaw resection (removal of half the jaw in two cases and one third in one case) in three cases, with extensive neck dissections in all, only one is alive today.

Fifteen advanced lip cancers figure in this list of cases, the majority of which were clinical patients and impossible to keep track of more than a few weeks following operation. During this period previous to 1908 a number of private patients with cancer of the lip, tongue and mouth, were operated on, all practically showing the same advanced stages of the disease as the charity patients; and as less than five per cent. of these are living, it is safe to predict the fate of the charity patients, who as a rule, are always more difficult to follow up than the private ones.

2. Surg. Gynecol & Obstetrics, Aug., 1912.

Up to 1908 fifteen breast carcinomas were subjected to operation and in so far as we are able to determine but three are living. Only one case of malignant disease of the alimentary tract out of ten cases is now living, or was a year ago. In addition to these cases six amputations were made for sarcoma involving the extremities; one of the forearm, and five of the leg; all are dead.

It is needless to say that in all of these cases the operations were radical, no structures being spared that presented the least suspicion of being implicated. In all these cases, without an exception, procrastination had been the rule; many of these cases had not been diagnosed at all. The question of probable malignancy had arisen in some, but the reasons for delay in coming for operations, were generally due to bad advice.

Bearing specially on the points at issue is an experience recently had by the writer and which will briefly be related, because it so vividly portrays what this paper has, perhaps, but feebly done: The death of two members of a family—husband and wife—dying three months apart; the diagnosis in neither case being made. The husband aged forty-five had been under medical care for six months or more because of lumps varying from the size of a pea to that of a walnut, scattered about over the body. The wife aged forty also under treatment for excessive menstrual periods which often continued from one month to another. The husband's lumps were metastases from a melanosarcoma originating in a mole near the right nipple; when he came for operation more than one hundred nodules were counted on the body surface besides many within the abdomen; the peritoneal cavity contained fluid, the legs were edematous, there was lung metastasis, the patient was cachectic and had lost fifty pounds of flesh. His death occurred three months later.

The wife's condition was no less pitiable The entire cervix was destroyed by cancer, leaving an opening through which the finger passed readily into the uterus. The bladder, rectum and other organs of the pelvic cavity constituted one solid cancer mass. Her death occurred six months later.

Both of these patients were under the care of a Chicago doctor and so far as I was able to learn the nature of the disease in neither case had ever been suspected. This sort of thing is not an indictment against the physician alone who had charge of these patients, but, in the eyes of the world at least, it stands against us all and cannot be quashed while medical attention of this kind is being dispensed.

The next question is, shall this stigma rest entirely upon the shoulders of the few whose training and present environment are not equal to that of their supposedly more fortunate brothers, or shall we all plead guilty to a part, at least, of the present unsatisfactory, if not disgraceful, status of cancer treatment? Let us see!

Taylor recently sent out 150 letters to surgeons in Philadelphia, Brooklyn and New York, for the purpose of getting some idea of the amount and kind of work that was being done in the treatment of malignant disease. Not a reply to any of these letters contained definite information. Neither the end results, nor the number of cases that had actually been operated on were known. The replies in other words, did not contain anything that could be used. These are reports very much the same as those submitted from other sources on request regarding not only cancer, but many other important subjects, and which is well known to those who have attempted to gather data in this way.

A very important feature of cancer study and one which will bear some criticism is the manner of collecting statistics. The general run of cancer patients, no matter by whom operated, are usually scattered over several states, if not, in some instances, over the whole United States. When the time arrives for estimating the end results of the operative work in these patients some few are personally interviewed and perhaps carefully examined; some are corresponded with directly or through friends, relatives or acquaintances or perhaps the family physician. From these various sources replies come in, a few anyway; they are read, counted, assorted and classified; and on this evidence the author gives to the world his list of operated cases, the cures and the failures. Let us analyze for a moment the reliability of such evidence and take a thought regarding the true value of the source from which this information comes. The value of the patient's opinion on matters pertaining to bodily ills is well known to medical men generally; the family physician who, before the operation of these cases failed to diagnosticate the condition, now sends a report in which great reliance is placed; the opinion and over enthusiastic notions of friends and relatives are accepted with the rest, and out of this "hodge-podge" or jumble of reports we are furnished with statistics on cancer treatment. In short, the patients, the friends, the relatives, the doctor, all failed to recognize the condition early or in the beginning now become expert diagnosticians at long range, stating, with all assurance, the post-operative course and present condition of the patient, while the same is accepted by the surgeon with the same assurance and equanimity.

The people whom we would have the world believe are in sore need of "education" on the

cancer question, are the very people who are actually furnishing the world with cancer statistics. The last annual report of the Imperial Cancer Research fund has shown that much of our knowledge as to the various features of cancer is mere tradition; and that the passing of these erroneous ideas from generation to generation has done much to obscure the real truth.

These reports have shown that cancer is not peculiar to race or clime; that diet has no influence on this disease and that man is not the only animal in which it is found. The idea that prevails as to the greater prevalence of cancer in one country than another is chargeable directly to so-called statistics. Every surgeon who has made the effort to keep track of his cancer work must appreciate the errors that may result from this method of securing information.

Personal experience brings to mind case reports of this character. In several reports provided by the family physician and the patient as late as three and four years after the operation, giving the most favorable account, were correctly estimated only after death of the patients some months later. A carcinoma of the breast in a woman of thirty-eight apparently well and so reported three years after the operation died with metastasis in the spine before the end of the fourth year. Numerous instances of a like kind might be cited, but this will suffice.

A widespread belief that cancer, generally speaking, has a single point of origin, is local in other words, and therefore amenable to surgical treatment encourages the idea that timely surgical interference offers the only cure in malignant diseases.

Cancer may not represent always the "progeny of a single cell" as has been shown by Peterson and in substantiation of which cancer in paraffin users, *epithelioma* at different points of the senile skin or in *keratoses* on the skin and the *adenocarcinoma* of both ovaries, are good examples.

Clinical experience teaches, however, that malignant growths, or those pathologic conditions from which it is prone to develop are, in a large per cent. of the cases, not diffused; that they will fall well within the limits of moderately extensive surgical operations and when executed sufficiently early will include all of the tissue constituting the precancer lesion; and that short of this nothing that has ever been used in the treatment of malignant neoplasms, except possibly the X-ray in very superficial growths, can hold out the same prospects for ultimate cure.

No effort has been made to give a resume of the cancer field in which so many honest toilers are now moving forward with bright prospects of a better knowledge of the etiology and the possible cure of cancer; the few cases from a personal experience are referred to in a very general way. As malignant cases they presented nothing of etiologic, histologic or clinical significance not found in the average malignant disease. They have been used, owing to the bearing they have upon the three chief points of this paper, and which, in summarizing are:

1. Cancer diagnosis is made so late that surgery not only fails to achieve its purpose, but frequently increases the malignancy of the growth, thereby hastening death.

2. Failure to cure more cancer by former methods of surgical treatment, has resulted in the development of operative procedures not possibly in the hands of every surgeon; besides being attended with a high immediate mortality, are ordeals but little less, if any, feared than the disease itself.

3. The present methods of furnishing statistics of cancer is open to serious error and when used as a guide to one desiring the best results in cancer operations, should not count for much as compared to the knowledge gained by a personal experience, however small.

As stated at the outset, this presentation is without new suggestions as to cancer diagnosis or treatment; but contains points bearing upon both, and which have, while known to every one, been utilized as a general thing so late in the progress of the disease, that great skepticism now prevails among people generally as to our ability to cure cancer under any circumstances.

If what has been said shall have the least influence through whatever source in the dissipation of this doubt in the minds of the laity, and by urging us to a little closer vigil or keener outlook for early cancer, or better the precancer lesion, to the end that occasionally a life may thus be saved, shall we not feel that some good is being accomplished?

DISCUSSION

DR. ——

Mr. Chairman, I do not know anything about this subject. I am frank to say that; I think, however, I agree with everything that I have heard the speaker say—I did not hear all his paper. But what we need, and what I am always preaching, in season and out of season is that we are never going to get rid of such a disease as cancer, until everybody undergoes a thorough medical examination at least once a year. I believe that that time is coming, and I believe it is coming soon. I think it is going to extend from the medical examination in our public schools,—and you can all see the benefit of that—so that it will become eventually the fashion. I do not believe the law would have any effect upon it; but it will be the fashion for people to go to the doctor at least once a year and have a thorough examination; and then cancer would be detected when it is still amenable to surgical treatment.

DR. CHANING W. BARRET, CHICAGO.

Mr. Chairman, I respond to your invitation mainly to express my appreciation of the value of such a paper as Dr. Fuller has read, and to agree with the sentiments set forth therein.

We all know at present, aside from the characteristic form of cancer itself, very little as to what cancer really is. When we find out what it really is, our knowledge along that line will grow, and perhaps we will find something a little more advantageous in the detection and cure of the disease. But at present, our treatment lies mostly along the line of preventing cancer. It is true that Wertheim and Reese have done something in developing a very extensive operation for carcinoma of the uterus; but Schroeder and Newman, who devised methods of amputation of the cervix, have done far more to prolong life, and prevent death from cancer than any number of men can ever hope to accomplish in the extension of the operation for carcinoma. There is a limit to the endurance of the patient in regard to the radical operation; and the man who can with the removal of the cancer of the uterus, take out the gland, in that region, and cysts of the pelvis, and overcome the sarcoma, even if he spent the rest of his life trying to extend that operation to the taking out of the lumbar glands would accomplish very little in the sum total of human life. Practically every patient that develops carcinoma of the uterus would fail to have that carcinoma if the condition from which it sprang was taken care of before the cancer developed. Now, we may differ upon the question of the precancerous stage. There may be those who say they cannot recognize that stage, and there may be others that say they can recognize it. Yet, the fact that cancer implants itself practically always upon some other condition that goes before it, should not keep us clinically from taking advantage of that fact. I think it is perfectly plain if we wanted to prevent cancer of the abdomen in certain classes of women, the way would be to stop them from wearing those garments because there is a certain tendency set up there that tends to make them develop carcinoma, because it is not an ordinary thing in other individuals. Carcinoma in the lip seldom occurs except in those who have some particular irritation of the part; carcinoma of the tongue also very frequently comes on in those that have particular irritation, or something of that kind. Carcinoma of the cervix comes on in those who have an irritated condition of the cervix. A woman comes to the age of carcinoma because there is a relative tendency to carcinoma developing, not absolutely in all cases, but frequently from the scars and conditions left over from childbirth, or from keeping from childbirth; and the results are that very few women arrive at the end of the child-bearing period without conditions that they would be better off without. Now, some say to the physician: "I do not want to lose any of my organs: I do not want to lose any part of the tissues." Why, it is possible, very possible, to make that woman lose the uterus, when she is at the end of the childbearing stage, for as a matter of fact there is nothing left of it, just a little old shell of a once active organ. The patient ought to be shown these things; and if it is the removal of the whole organ, it should be removed, and if it is the removal of a part of an organ, that part of the organ should be removed; in other words, we should not sit down by the side of a patient who has some pathological nodules in the breast or the uterus and try to determine when that is benign, to leave it alone; or when it is malignant, to take it out. We will do that patient a great deal more good to show that that is the pathological condition, and that its removal has a tendency to prevent carcinoma, and it should be done away with. There is no excuse for pathological material being left in the uterus or in the breast, or in any other organ where there is a great tendency to carcinoma.

DR. MILES F. PORTER, FORT WAYNE.

Mr. Chairman, this is a very interesting subject. We talk about the precancerous stage, and we know nothing about it practically. A lacerated cervix in one woman may be the forerunner of a cancer in that individual case, and there may be plenty others who go along until they die at the ordinary end of time, the allotted time, without any cancer at all. A woman presents herself to you, with a mole, or a wart, and with a lump in the breast, and they go along for certain lengths of time—some of them to the end of time—with no malignant development, while others of them—all apparently of the same sort—develop later on into a cancer. I am reminded of a piece of advice that I received from a very old friend of mine, when I was a boy at work in a store. I was a clerk in a store, and talking on the subject of credit; and he called me by my first name, and said: "I will tell you, Miles, the best way is to regard everybody that comes in as a shyster until you know different, and you won't get stuck very often." So I should regard every one of these neoplasms as malignant, and remove them. That is the only safe way; they should be removed, I think, and no matter whether it is in a girl of twelve or a woman of forty-two—they should be removed; and then they may be examined, and if they prove to be malignant, perhaps a more radical operation may be called for; so to prevent cancer of the genital organs in a woman, the best way is to do away with the rough ulcerations, etc., that occur,—that is the prophylactic treatment of cancer, and then you won't need to take these *uteri* out. Just as long as you continue to allow these women to carry their lacerated cervix, as long as you allow these women to carry their lumps in their breasts, just so long you will be making inroads upon really inoperable cases of cancer.

And I would like to say one word about the so-called inoperable cases of cancer. Just as we do not know yet when a tumor first begins to be malignant, so do I believe it to be true that no man has the right to say, except in very exceptional cases, that a common case of carcinoma is inoperable. The course of my experience with carcinoma has not been pleasant at all; it has been decidedly unpleasant; but I have had a few experiences that have taught me to believe that I am not competent to say whether a given case is inoperable or not. I have two women living now with what I regarded as inoperable carcinoma of the uterus, for whom I could do nothing in the shape of a radical operation. And they are living yet. Just the other day I was reminded of that fact by having received an invitation from her daughter to attend her commencement exercises in the high school.

So then we cannot always say that a cancer is inoperable; in these cases that I regarded as hopeless, when we see that they can get well: for once in a while, of course you will find one of these cases that can get well, and some that cannot get well at all. But of course, I do not want to say anything against the early operation for cancer, or rather for the operation of the precancerous stage. It has for years been my rule to regard every tumor of the breast as malignant, and to regard every pigmented mole as potentially malignant, and to act accordingly. With these cases of lacerated cervix, and even chronic endometritis, I operate energetically, and thoroughly—conservatively if need be—and

even rub applications of strong irritants—for any of these are capable of producing cancer. When we do these things I think we will have better results. I am not at all sure, but I think there is some experimental evidence that goes to show that there is something behind the mere local trouble evidence that determines in a given case whether we are having malignant degeneration or not.

I happened to be going through the medical department of the Harvard University some few years ago when they were making some experiments on mice, on the Japanese mice that have cancer very frequently. They were grafting those cancers, and when they grafted those cancers onto the mice of the same breed practically all of them grew cancers. When they ingrafted those same cancers on the ordinary house mouse, brown mouse, scarcely any of them grew, but when they took those two, and inoculated those hybreds about half of them grew cancers. It makes one stop to think that possibly after all there is something in the blood that determines whether he is going to have cancer or not, and there arises the hope that perhaps by and by we will have no occasion for the surgeon.

DR. J. WALTER VAUGHAN, DETROIT.

This has been a most interesting paper, and a most interesting discussion, and it all goes towards the same point; I hope that it has sunken deeply into every one here. Dr. Fuller is conducting a campaign of education, and is conducting it right where it belongs—not the people, but the physicians themselves. Many times do I see cases of inoperable cancers that have been watched and watched by the doctor. Just the other day I had a young girl of eighteen in the office with a tumor in the breast—no doubt about the nature of the tumor at all—and I advised that the thing be removed. She immediately went to her family physician, and the physician advised that it be watched. Now, there is no danger in that, there is no danger in curing it, and maybe five or ten years will develop that it is a piece of tissue that has gone wrong. It is a piece of tissue where carcinoma is more likely to develop than any place else, and it ought to be taken out; every growth, every tumor, every pigmented mole should be removed, and should be removed at once.

With regard to Dr. Porter's remarks about the mice, and being able to transmit cancer only in animals of the same species, I would say that we have made some very interesting experiments in the work we have done in our laboratories at Harper Hospital, along the same line. If we take human cancer and grind it up, and make a vaccine out of it, and inject that into rabbits we get a very high, or large amount of mononuclear leukocyte count. If we inject that rabbit with a large amount, we kill the rabbit. We can take the human lesions of cancer, and we can sensitize dogs and rabbits. When I inject that in myself I cannot get that result; I cannot produce in the same race that the dog is taken from as high a degree of sensitization as I can in one from a different race.

DR. ANGUS MCLEAN, DETROIT.

I have not much to say except that I am very much interested in the paper. Of course this subject of cancer, I think, interests everybody, and puzzles everybody who is interested. There seems to be something about it that is associated with some sort of secretion, some sort of physiological change. Because we speak about the cancer age. The cancer age is supposed to come in the female with the beginning of the menopause; that seems to make it more susceptible, there is something that is taking place there, that is in the way of resistance, or something that allows this parasite, or whatever you wish to call it to become ingrafted, some condition at this time in which it is allowed to develop. I think one of the unfortunate things about all cancers, especially those that cannot be seen is that they have no pain. I think if many of these lesions caused pain early—as acute ulcers and those things do—I think then the attention of the patients and the doctors would be directed to them, for many would come to the physician for the relief of the pain, and many of these lesions can be removed, with the result of effecting an elimination of the cancer. There is some change in the relative position of the leukocytes of the blood that allows it, because, as Dr. Vaughan said this morning, in certain cases you will find lower leukocyte conditions, and in others higher leukocyte counts.

I hope Dr. Vaughan or some other people are along the right track, because I really believe that is where the relief comes.

DR. FULLER:—There is not anything further, Mr. Chairman, particularly, that I have to say. Whatever the paper lacked was brought out by this very replete and full discussion.

Dr. Barrett has suggested a good point regarding early operations of neoplasms that are more or less likely to become cancers, and called attention to the necessity of educating the people along this line, as well as the doctors. On what points shall we educate the people? Certainly we can never even hope to educate people generally on any of the phases of cancer, or precancer lesions; but we can educate them on this point: That all of these lesions are surgical, and are amenable to simple surgery. Patients as a rule do not object to simple operations, operations without mortality, and operations that have a short period of convalescence—patients do not object to that kind of an operation at all. I believe if we educate the people, not so much about the precancer lesion—a thing we know but little about ourselves, but rather on the simple procedures necessary for a cure this will prove ample.

I think Dr. Porter is correct in saying that we cannot say always when a cancer is inoperable, and therefore should exercise the best judgment before refusing to operate. We have all operated on cases which at the time promised little, owing to the apparently advanced state of the tumor, but have been surprised to later find such cases greatly benefitted, if not actually cured. I consider this an important point, and agree with Dr. Porter fully.

THE GREAT NEED OF THE EARLY DIAGNOSIS OF UTERINE CANCER. *

J. H. CARSTENS, M.D.
DETROIT, MICH.

When the vital statistics show that one woman out of every eight dies of cancer, it is certainly time that we sit up and take notice, and by a vigorous crusade try to check this terrible state of affairs.

There is no doubt at all, that cancer is increasing, although not at the rate which statistics seem to show. Unquestionably formerly the diagnosis was not made as often as at present, and many patients died and the death records were given as something else. The microscope was not used so freely, and our diagnostic ability was not so acute as at present. Naturally more mistakes were made in cases of

* Read before the Section of Gynecology and Obstetrics, Michigan State Medical Society, 48th Annual Meeting, Flint, Sept. 4-5, 1913.

cancer within the abdomen, because in the uterus the symptoms are so manifest that certainly in the last stages anybody can make the diagnosis. Here we come to the real point: it is not a question in making the diagnosis when the patient is dying, as it is to make it earlier. Our great effort should be to make the diagnosis of cancer in its incipiency, for even if we sometime in the future shall be able to find the real cause of the disease, and discover a specific, it will always be necessary to attack it in the early stages, like every other disease.

If we consider what publicity has done in the case of tuberculosis, we have a right to assume that we can do the same thing for cancer by arousing the general public, by having the people understand something about the symptoms and the seriousness of the condition. For if not diagnosticated early, in the present state of our knowledge, and prompt surgical means instituted to stop the further progress of the disease, we are helpless.

Several national organizations have already been formed to work on these lines. Dr. Cullen of Baltimore, Chairman of the Committee, has asked me to keep the question stirred up in Michigan. I have been at this for years, and have written considerable about it, and in Michigan we are further advanced on this point than most of the states. Our State Board of Health has issued circulars on Cancer, for distribution among the people, and it has had good effect, but they must be more widely distributed. The lay-press has taken up the question at the request of medical men, and there must be no let up on this point.

At the same time it is really up to the family physician to do this real work; he must be constantly alert and suspect the disease in every woman, who shows even the slightest symptoms, *during the cancer age.* The family physician must be constantly teaching the people what the early symptoms of cancer are, and he must constantly look for symptoms in women of forty or over. He must have the lay-press in his community, in every county and every town and hamlet, wherever there is a paper published, write something about cancer. Not only cancer of the uterus, but of all the other organs and parts of the body. He must be constantly alert to look for symptoms. We are all liable to forget and overlook little things, when we have some other marked trouble called to our attention. The patient will make a great ado about some particular sign or symptom, which is of no importance, while some slight sign or symptom is never mentioned, but on which to us hangs the diagnosis.

LEUCORRHEA.

Take for instance the question of Leucorrhea, it is so common and in many cases so slight, that women pay no attention to it, and never mention it. Sometimes a hyper-secretion which comes on and off, still how important is it for the family physician to thoroughly investigate this point. Many women will say that they have had it off and on for years, but if you dive into the case thoroughly, they will tell you at present it is more persistent, and a little different than it ever was before. Such cases should not be dismissed with a wash or injection, but should be thoroughly investigated. Having passed through this myself, I know that the family physician is often busy, he must rush off to a case of confinement, or an accident case, and cannot take the time to investigate the patient thoroughly. *He should know that it may be serious,* and thus *make an appointment with the woman for the next day* when he has more leisure and can make a thorough examination of her case. The microscopic examination of the vaginal and uterine discharge is sometimes valuable, and if there are any raw surfaces and lacerations of the cervix, some of the diseased tissue should be removed with a curette or clipped off with a scissors, and then subjected to careful microscopic examination.

You know I am talking about the cancer age. In young women it might be excusable in treating them for a while, *still it must be borne in mind that often young women of twenty, twenty-five or thirty have had cancer,* and this must not be lost sight of.

No matter what the trouble is, and what the operation is performed for, all curettings, and tissues removed in operating for lacerated cervix, should be examined for cancer, no matter what age the woman is.

I have only talked about slight leucorrhea; when the case advances the discharge increases and changes in character, until it becomes thinner, watery and irritating, and finally begins to smell. Hence, I want to especially emphasize, that during the second stage when the discharge produces irritation, burning or excoriation on the vulva, it is a very serious sign. Of course, when the odor is very bad, so that you can smell it when you step into the room the patient is generally beyond all help.

FLOWING.

The next suspicious symptom is abnormal flowing, and that is, if the menstrual period becomes prolonged, for instance when the usual period is three days, it continues to four days or five days, it is very suspicious in a woman during the cancer age. Or, what happens in some cases, menstruation comes a little earlier, a day or two, and after a while another day or two, and finally occurs every three weeks or even less. Such a patient requires the most thorough investigation. Or again, if the men-

struation is regular and apparently normal, but there is a little show between the periods, that also is very suspicious.

With thorough examination you may find the cervix apparently normal. Perhaps the woman never had any children and still you have the above symptoms. This is very *suspicious of cancer of the fundus*, and requires the use of an anesthetic to thoroughly dilate the cervix, and curetting of the fundus, especially in the *direction of each horn* of the womb, and this curetting must be *carefully examined microscopically*. I have often found ulcerated epithelial cancer in one or the other horn of the uterus, less than a centimeter in diameter, and when you curette you get but little tissue, and you might accidentally examine only that which is healthy, and make a wrong diagnosis, even with a microscope.

One great thing we must teach, and teach, and teach, that is that the vicious notion that women have, that it is necessary for them to flow a great deal during the menopause, is absolutely wrong. This is so rooted in the minds of people, and so difficult to eradicate, that we must in and out of the season, on every possible occasion call the attention of women to this point: that the menopause is gradually or suddenly established, *but not preceded by an excessive flow.*

PAIN.

The last symptom is pain, I mention it last because so many women are so unfortunate not to have any pain, and therefore they do not consult a doctor. I have seen the whole cervix destroyed, and the woman never had a particle of pain. And I hold that those women are blessed who have the most severe pain from the very beginning, as they will consult a doctor, and continue to consult a doctor, until the diagnosis is made and they are relieved.

And last, let me not forget to mention that the loss of weight continued for several months, without any apparent cause, is a very suspicious sign of malignancy, not only of the uterus but anywhere else. If any woman comes to a physician with the statement, that she is loosing weight for some months, the case must be thoroughly investigated in every direction to find the cause.

CONCLUSIONS.

In conclusion I would say, that the women of the land should know, and the family physician should teach continually, what I concluded in an article read before the Mississippi Valley Society, four years ago, that:

"The change of life or menopause comes on gradually, rarely suddenly; it is not preceded by excessive flowing or discharge or pain in a healthy woman.

"By cancer period is understood those years after forty, although rarely it may occur earlier.

"The first symptoms of cancer are:

1. Profuse flowing, even if only a day more than usual. Flowing or spotting during the interval, or after the use of syringe, or the movement of the bowels.

2. Whites or leucorrhea, if not existing previously; if existing, but getting more profuse, watery, irritating, or producing itching, it is a very suspicous symptom.

3. Loss of weight, if no other cause is apparent; pain in the region of the womb, back or side.

"If any of the above symptoms occur after the age of thirty-five or forty, a woman should seek prompt relief *and insist on a thorough investigation of the cause* and prompt treatment.

"Cancer is always at first a local disease, and can be removed if early recognized, and an absolute permanent cure brought about."

620 Woodward Avenue.

ENDOCARDITIS DUE TO STREPTOCOCCUS RHEUMATICUS AND THAT DUE TO STREPTOCOCCUS VIRIDANS ILLUSTRATED BY SPECIMENS, TOGETHER WITH DISCUSSION OF ETIOLOGY AND PROGNOSIS.*

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The first specimen shown you is an acute endocarditis of the tricuspid valve produced by Dr. E. C. Rosenow of Chicago by the injection into the ear vein of a rabbit of pure cultures of *streptococcus rheumaticus* obtained from the joint of a patient suffering from articular rheumatism. As you see the vegetations are small and developed on the posterior aspect of the cusps along the line of contact. It is readily understood from this specimen why such a lesion in a child or young adult may be recovered from without disastrous effects on the heart, provided there is not associated serious pericarditis or myocarditis. But, if inflammation of the pericardium or myocardium complicates the endocarditis, or, if repeated attacks of rheumatism supervene with still further involvement of the valve, then the injury to the heart may be so extensive as to render the lesion incompatible with long life.

This second specimen shows massive vegetations on the tricuspid valve of another rabbit's heart into the ear vein of which animal Rosenow had injected pure cultures of the *streptococcus viridans* obtained from the blood of a patient with septic endocarditis. Here the growth on the valve is so massive as to have

* Read before the Section on General Medicine at the meeting in Flint of the Michigan State Medical Society, Sept. 4-5, 1913.

practically occluded the tricuspid orifice, so that death of the animal resulted from mechanical interference with the circulation. In this form of endocarditis, pericarditis or myocarditis is never associated, but the vegetations are massive and soft, easily detached and swept into the blood stream. They not infrequently appear as a mural as well as a valvular endocarditis.

The third specimen is a slide showing a section of a sclerosed mitral valve originally due to rheumatism, there being at the base of the valve a massive growth of the *streptococcus viridans*. These organisms are covered over by a thin layer of fibrin, and had the man lived a while longer these countless bacteria would have burst through the covering of fibrin and been swept away to form infarcts in various parts of the body. This patient, in whom I made the diagnosis of a *streptococcus viridans* endocarditis before blood cultures by Rosenow substantiated my diagnosis, had been well and undisturbed by his valve lesion until last fall; he had what he considered a grippe attack. Thenceforth he was not well and when examined by me was having fever, weakness and slight loss of weight and strength, for which symptoms he had sought medical aid. He did not complain of rheumatic pains, which it may be said in passing is usually the fact in cases of this form of ulcerative endocarditis. His temperature ranged higher than is generally observed, owing to the marked bacteraemia and short course of the disease, only a few months from the time diagnosis was made. After death examination of the heart showed massive soft vegetations not alone on the mitral valve, the original seat of mischief, but on the aortic cusps and on the wall of the left auricle, a feature of these cases to which Libmann has directed particular attention.

ETIOLOGY OF ENDOCARDITIS.

As to the etiology of endocarditis I may state that Rosenow is of the opinion that the organisms reach the valves not by being deposited upon their free surface but reach the capillaries as bacterial emboli. He has seen streptococci within the capillaries twenty-four hours before phagocytes could be discovered in them because of the meagreness of collateral circulation. Whereas in the glomeruli of the kidneys he has seen infarcts completely surrounded by leucocytes without a single germ, the richness of the blood supply permitting free access of the phagocytes to the micro-organisms. When, as age advances and the capillaries of the endocardium become still fewer, the liability of pathogenic bacteria to be carried to the valves becomes less, which fact may account for the decreasing liability to endocarditis toward middle life. Yet, if a valve has become sclerotic in consequence of rheumatic endocarditis, as in the case of the young man from whose mitral valve this section was obtained, there is still less opportunity for the leucocytes to reach and destroy bacteria carried to the valve. Hence in such are furnished conditions favoring the growth of streptococci whenever they enter the circulation.

But there must exist some focus of infection from which streptococci may gain access to the lymph stream and blood. Such a focus may exist in the appendix, gall bladder, intestine (Rosenow) or any other closed cavity, but without doubt the most frequent atrium of infection is the tonsil, and Rosenow has obtained the viridans streptococcus from an inflamed tonsil at the height of articular rheumatism. Furthermore, he has by cultural methods converted the *streptococcus haemolitecus* into the *streptoccus viridans,* just as he has transformed the latter into the pneumococcus. Accordingly he believes that the human body is capable of transforming the *streptococcus haemolitecus* into the *streptococcus viridans.* So that a child with chronically infected tonsils may get up an acute endocarditis or the far more terrible form caused by the viridans organism. Consequently, whenever a victim of valvular disease, particularly of aortic regurgitation, has tonsils that have been inflamed and are no longer healthy they should be extirpated, and I desire to say, with all the emphasis of which I am capable, tonsilectomy in a child with valvular disease is safer under ether and by a rapid, skilled operator than if the patient is left to the risk of streptococcus infection from the tonsils left *in situ.* In other words, the risk of this operation is less than is the danger of subsequent ulcerative endocarditis. Chronicly diseased tonsils are not always enlarged, nor are they always red, for even small buried tonsils may and often do contain in their center a pocket of pus.

That malignant endocarditis due to the *streptococcus viridans* is most often the sequel of a throat infection has been impressed upon me by the frequency with which I get a history of the ill health having begun as a so-called "attack of the grippe." Last January I was consulted by a young man whom I had examined seven years previously and who I knew had an aortic regurgitation of rheumatic origin. Consequently, when he said he had not been well for a month or two past and ever since a grippe attack in the fall had been having slight fever and losing in strength and weight, I was at once suspicious of septic endocarditis from *streptococcus viridans.* He was advised to enter a hospital for further study. There on being put to bed he said he felt well, but his temperature ranged daily between 99.5 and 101 or 102, while his leuco-

cytes were increased to about twelve or thirteen thousand. He had no joint pains and no cutaneous infarcts were discovered. Blood cultures were made by Rosenow who reported "that awful thing," the *streptococcus viridans*. Of course I regarded the case as hopeless from the start but I could not tell the young man or his father so at once, and hence I advised that the patient be removed to the Presbyterian Hospital where Rosenow could administer autogenous vaccines in the forlorn hope that the progress of the malady might be delayed if not arrested. This was done and Rosenow made cultures from the blood every day for more than two months. Each administration of the vaccine was followed by a slight increase of temperature, but the bacteraemia seemed lessening, and at length on two or three occasions no organisms were obtained. The heart which I examined from week to week showed no change for the worse and the man declared he felt well. But what happened? Every now and then an infarct appeared, once on the left fore arm, once in the terminal phalanx of the right middle finger; next two in the mesenteric arteries as shown by pain. etc., and finally a cerebral embolism, the very thing we had been dreading. This was followed by delirium, hemiplegia, unconsciousness and death from secondary pneumonia. Here then was a case in which everything known to medical science and skill was done, but all to no purpose. It exemplifies not only in a way the history and clinical course of this dreadful disease, but it shows plainly how hopeless is the prognosis. These cases may run their course in from four months to fourteen or eighteen months. Even when they fail to yield positive cultures during life in consequence of the system having been able to overcome the bacteraemia, still they succumb inevitably in time to the endocarditis. So massive are the vegetations, owing to the clumplike growth of the bacteria, that portions of these soft thrombotic masses are broken off every now and then setting up embolisms in various parts of the body—or the growth upon the endocardium spreads from one set of valves to another or develops upon the inner surface of the ventricle or auricle in the form of mural endocarditis. Thus death may come through mechanical interference with heart action.

DIAGNOSIS.

The diagnosis of this chronic ulcerative endocarditis is assured only by cultures of the *streptococcus viridans* in the blood, but the germ is easily destroyed and hence one must be an adept in cultural methods. Moreover, there are cases of bacterial free endocarditis of the kind under discussion, particularly when the progress of the disease is long drawn out. In such the diagnosis can be made from the variable often slight rise of temperature, the absence of joint pains, the occasional discovery of skin infarcts and especially the recognition of red blood cells in the urine. As Beher has pointed out, glomerular infarcts are not infrequent in these cases and are revealed by erythrocytes in the urine. Consequently the urine should be examined frequently and when red blood cells are found they are very significant, particularly if marked renal congestion can be excluded. Another point of importance is the absence of pericarditis as well as the slow appearance of marked change in the heart findings. Even when these do not occur the history of symptoms dating from a so-called attack of the grippe or a throat infection in one already suffering from valve disease, together with progressive loss of strength and weight, the occurrence of more or less fever according to the acuteness or chronicity of the endocarditis will usually enable one to surmise correctly the mischief being wrought by this deadly organism.

The recognition of a subacute endocarditis is strengthened also by the persistence of a moderate leucacytosis of twelve or thirteen thousand. Even in the absence of discoverable infarcts the occurrence from time to time of short runs of fever and a progressive, although not pronounced, decline in weight and strength makes for a steadily advancing process within the heart. In a word the general clinical picture even without positive cultural proof will generally enable one to arrive at a correct interpretation of the nature of the case.

TREATMENT.

From what has been said in the brief report of the two cases here mentioned it is evident that we possess no therapy capable of arresting this terrible malady. Autogenous vaccines by assisting the system to destroy circulating bacteria may lessen the intensity of the symptoms and may even retard but can not prevent the fatal outcome, since they cannot reach the organisms imbedded in the vegetations and protected by a covering of fibrin as in the specimen here shown. Consequently our aim should be the prevention of this frightful malady, and since the preponderance of evidence is in favor of diseased tonsils as the atrium of infection it should be our duty to so inform patients with valvular lesions. We should not hesitate to advise tonsilectomy therefore since if quickly performed under ether the operation is a relatively safe one. The complete enucleation of the tonsils may not be a guarantee against future endocarditis of this viridans type but it is a safeguard and hence should be resorted to whenever an individual having once suffered from endocarditis is subject to recurrences of tonsilar inflammation or has tonsils that are no longer healthy and capable of performing their normal function.

HEART IN PREGNANCY *

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The study of cardiac disease in pregnancy may be approached from two distinct points of view: namely, from that of the obstetrician, and that of the internist.

It is not very common for the obstetrician to encounter a diseased heart in practice; firstly, because the average woman presenting a heart lesion is warned against conception; secondly, because cardiac lesions very rarely develop during normal pregnancy; thirdly, because the signs of cardiac incompetency rather than murmurs, accentuations and enlargements are sought by the obstetrician in the routine examination of the pregnant woman.

The internist, on the other hand, is confronted with the question of pregnancy and cardiac disease for slightly different reasons. To him are referred women suffering with cardiac lesion who contemplate marriage. Again, he sees them in the early months of pregnancy, when, though they are aware of the cardiac lesion, they find that conception has taken place. Again, the question is often put to the medical man by the obstetrician to determine whether a woman shall be permitted to go full term. And finally, cases of acute failure are seen, when the patient in the midst of labor shows signs of extreme cardiac incompetency. As lately as May, 1913, at the Congress of Gynecology and Obstetrics held in Germany, the relationship of the pathologic heart to the pregnant woman received brisk discussion. Wide differences of opinion were manifested. Experiences of physicians were in some instances diametrically opposite. One thing was apparent. Outside of statistics, which were very variable, no standard was employed for estimating the cardiac efficiency, or basing a prognosis in any given case.

STATISTICS.

If we are to rely upon statistics of the frequence of cardiac disease complicating pregnancy we would be led to consider it of rare occurrence. In 3,000 clinical cases of obstetrics, Sellheim observed forty-five cases with cardiac disease. Of 23,577 births, including abortions, in the Dresden Obstetric Clinic, from the years 1903 to 1912, inclusive, pregnancy was interrupted twenty-six times only because of cardiac incompensation. Sixteen of these cases presented mitral insufficiency. Three were aortic insufficiency, and seven were myocardial diseases. Of the twenty-six, four died. In every instance Kreiss states that labor was induced only after every medical means to bring compensation had been thoroughly tried.

From Doderlein's Clinic in Munich, Baisch reports some interesting data. Of 200 cases with valvular disease, fifty per cent. developed disturbances of compensation during pregnancy, twenty-five per cent in a severe form; two and a half per cent. died in labor. Of nine women suffering with myocardial disease, five died during labor and two within a short time afterwards. (In all, forty per cent. of the women suffering from cardiac disease, hemorrhage occurred from atonic uteri.)

Gronè quoted a very interesting series of cases. In his collection there were fifty-four births among forty-two pregnant women suffering from cardiac disease. Thirty-four women went through but one pregnancy. Six women gave birth to children twice. One woman went through three labors, and finally one had five children. In this series there were three deaths. In fifteen of the cases, there existed a mitral regurgitation. In twenty-three, a mitral stenosis was present. Two were ascribed to aortic insufficiency and in two, aortic and mitral disease combined. There was good compensation in thirty-four confinements. Fair compensation was present in twenty; six of which were just on the borderline approaching incompensation. The author had three deaths. In thirty-one instances spontaneous delivery took place; in fourteen cases, operative procedures were required, (which consisted of eleven instances of abortion being used; two manual deliveries and one vaginal Caesarian section.) Nine interruptions of pregnancy were essential with forceps and a dull curette; one death resulted out of these nine.

The opinions expressed by these various writers are interesting yet widely at variance. Some draw many hard and fast lines; none distinguish clinically between different grades of pure cardiac disease; none have seen proportionately the same number of cases; nor from the different clinics do we see similar percentage of mortality. Finally, none offer a satisfactory basis or standard whereby one may prognosticate as to the outcome of a woman's period of gestation when she suffers under the additional handicap of cardiac disease. Neu states that only early incompensation with pregnancy should be interfered with. All others should be treated. He agrees that mitral stenosis is the most dangerous form of valvular disease. Gronè is optimistic also, and thinks that his series show that the dangers from cardiac incompetency are overdrawn. Tuskai thinks that the prognosis is unfavorable in all cases where heart lesions existed before pregnancy. He also states that the prognosis is unfavorable in hearts that have suffered

* Read before the Section on Gynecology and Obstetrics, Michigan State Medical Society, Flint, Sept. 4-5, 1913.

from the effects of some systematic infectious disease or angio-scleroses. Kreiss states that without previous medical attention, pregnancy should be interrupted in congenital pulmonary stenosis, pericarditis with effusion, early endocarditis, persistent insufficiency of any valve or valves and in those diseases where a weak heart muscle complicates other diseases, such as nephritis, goitre, etc. There is probably no question in the practice of medicine and obstetrics where the skill and judgment of the physician is more sharply taxed than in cases where cardiac disease complicates pregnancy. On the one hand if proper estimation of the woman's cardiac condition is not made, disastrous results may follow. On the other hand, too inflexible a view of the dangers resulting from cardiac disease of the pregnant woman may wrongly impose upon a young wife unnecessary disappointment. Above all things, it should be pointed out that valvular disease of itself is not, and never should be considered a contra-indication to pregnancy. It too frequently happens that a young woman is told that the presence of a cardiac lesion is incompatible with conception. Such advice is neither founded on theory nor on experience. Although a valvular leak increases the burden of the heart and consequently lessens the field of response that it possesses to exertion, it is, after all, the ultimate power of the heart to maintain its circulation when under strain, that should be the factor to determine whether or not a woman shall have children.

The subject naturally divides itself into three classes. First, the advice that shall be given to the young woman suffering from cardiac disease who desires children. Second, those who, during the period of gestation are found to be suffering from cardiac lesions. And third, those that are occasionally met with during confinement that have not sought the advice of a physician previously, but who at the crucial time show evidence of cardiac failure.

CONTRA-INDICATIONS.

In estimating cardiac strength the condition of the heart muscle plays a big part. The valvular leaks, without considering consequent changes in the myocardium, have not all the same importance. Unquestionably, from a prognostic point of view, mitral stenosis is a contra-indication to full term pregnancy. The reason for this is apparent. Increased presence of blood in the lesser circulation leads very quickly to incompensation through stasis in the lungs and dilatation of the right ventricle. In other words a heart with mitral stenosis possesses less power of muscular reserve than any other single form of valvular disease. In contrast to this stands mitral regurgitation which first of all calls for increased power from the left ventricle where the greatest muscular reserve force of the chambers of the heart lies. For the same reason aortic regurgitations which do not overload the lesser circulation but draw their power of response from the left ventricle offer a better prognosis.

Acute or chronic infectious conditions of the endocardium offer a distinct contra-indication to pregnancy. I have recently seen such a case. A woman of thirty who had had two healthy children previously, had been in bed eight weeks, suffering from an infectious endocarditis following a sharp attack of tonsillar disease. Her temperature and signs had subsided and the patient was slowly permitted to become active again. She was carefully watched for four weeks more without any return of the cardiac symptoms. Three weeks later the patient was taken acutely sick with further endocardial symptoms, her pulse ranging from one hundred and thirty to one hundred and fifty; periods of collapse, dyspnoea, temperature ranging from 100° to 102° and precordial distress returned. The patient told us that she had missed her previous period and though she thought nothing of it at first, believed now she was pregnant. Pelvic examination gave no positive evidence at this stage. Four days later the patient died suddenly of what proved to be, on post mortem, a cerebral embolus of considerable size in the posterior cerebral artery. A gravid uterus of about six weeks was found. Just beneath and running up into the posterior cusp of the mitral valve was an ulcerated area about two centimeters long and four millimeters broad. The area was deeply punched out, surrounded by inflammatory tissue and covered with fibrin adherent to the surface. Another small round ulcer was found at the apex. A streptococcus viridans was isolated from the heart blood; it had never been recovered on blood culture. The attending physician in the case, fully realizing the dangers of an endocarditis had not deemed it necessary after his patient had apparently recovered from the first attack to warn her of the dangers of pregnancy at this time. The eight weeks' rest in bed and her consequent freedom from symptoms led the patient to believe, no doubt, that the condition had subsided and no danger would follow conception. Evidently, soon afterward the infectious condition lighted up with fatal results.

I might speak here of the strong contra-indication that dilated aortic arch or aneurysm offers to pregnancy. In the first place, the etiological factor of aneurysm, the *spirochaeta pallida,* should prohibit offspring; and, so far as the mother is concerned, strong contra-indications exist. I was consulted this spring by a woman of thirty-six who presented both physical signs and a radiographic picture of

dilated arch, who contemplated marriage. She had been married eleven years previously and had had two miscarriages. When informed that pregnancy was in her instance incompatible with life, she informed me that she intended to have a child, even if it killed her. I made the risks plain to her and later to her prospective husband; I am awaiting the consequences.

Walthard reports three cases of aneurysm complicating pregnancy. In one there was slight broadening of the aortic shadow and signs of luetic aortitis. No signs of cardiac failure appearing, she was permitted to go to full term with good results. The second case presented a sacular aneurysm, which ruptured during labor. The third case of aneurysm showed signs of failure toward the end of pregnancy. Successful Caesarian section was performed.

WHEN TO INTERRUPT PREGNANCY.

Let us consider now the indications for and against the interruption of pregnancy. If a woman suffering from valvular disease presents herself in the midst of pregnancy without signs of incompensation then under careful supervision pregnancy may be permitted to proceed. If during the early months of pregnancy, however, signs of insufficiency manifest themselves, then pregnancy must be terminated. The reason for this is that any increased work required of the heart in the latter months will increase the insufficiency. This is particularly true when a history of signs of incompensation have existed previously to the pregnancy. If, toward the end of pregnancy, cardiac failure begins to appear, then when mitral stenosis exists labor should in every instance be induced because the least increase of strain thrown upon the left auricle and lesser circulation will, with the increasing pregnancy, destroy attempts at compensation. If mitral insufficiency alone is the cause for beginning incompensation than it is safe to endeavor by therapeutic measures to establish compensation again, and see if by proper treatment full compensation may not be maintained. Should, however, signs of failure supervene as soon as treatment is omitted, or should on slight exertion beginning signs of loss of compensation manifest themselves, then pregnancy must be terminated.

The frequent occurrence of combined mitral stenosis and insufficiency in the average case proportionately increases the danger. Yet, the general rule must apply that the reserve strength of the myocardium and the degree of its power of response after all shall determine the indications for the interruption of pregnancy.

With aortic insufficiency, practically the same rule applies, yet with the marked hypertrophy that occurs in the left ventricle, the field of response to increased activity is proportionately lessened.

If in the height of labor signs of insufficiency manifest themselves extraction of the foetus as rapidly as possible in whatever manner deemed most expedient by the obstetrician should be employed. Meanwhile, the heart must be strengthened to carry it over the period of increased strain. For this purpose I recommend in addition to all other well known procedures the method first recommended by Fraenkel and one which in four instances during the last year and a half I have seen brilliant results, namely, the intravenous administration of strophanthin.

One point here must not be forgotten: The post-partum care of the incompetent heart must in no wise be neglected for following prolonged labor, change in intra-abdominal tension and oft times in the loss of large quantities of blood, acute failure may supervene.

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THE VALUE OF ANOCI-ASSOCIATION IN ABDOMINAL SURGERY.*

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The principle of Anoci-association as given us by Crile may be briefly stated as follows: In the body there have been implanted innumerable nerve receptors for the purpose of effecting adaptation to environment. Some of these, such as those assisting in acquiring food, are designated beneceptors, while those whose function it is to protect against injury, are termed noci-ceptors. These latter are most numerous in parts of the body most frequently subjected to injury, as the face, throat, abdomen, hands, feet, etc. The brain having always been protected by the skull, possesses no noci-ceptors, conse-

* Read before the Wayne County Medical Society Sept. 29, 1913.

quently it has no pain sense and may be probed at will without the patient's knowledge. In each individual, at a given time, there is a limited amount of potential energy stored in the brain cells. Traumatization of any part of the body supplied with noci-ceptors causes a discharge of this nervous energy, leading to exhaustion, and if sufficiently prolonged, to shock. We are especially interested in that form of shock which occurs during surgical operations.

SHOCK

The first question then is: Does inhalation anesthesia prevent shock?

Crile has frequently demonstrated in experiments upon dogs that ether narcosis does not protect the brain cells from injury when any part of the dog's body supplied with noci-ceptors, has been traumatized.

The word anesthesia means without feeling, which very accurately describes the effect of an inhalation anesthetic; it renders the patient unconscious. We know that not every portion of the brain is anesthetized, since anesthesia does not kill. That the greater portion of the brain is awake and responds to injury, has been demonstrated by Crile. In a series of experiments he was able to show marked morphologic changes in the brain cells after operations upon dogs under ether.

The following fact is frequently noted during major operations: If, during inhalation narcosis, a nerve supplying a large muscle is stimulated, this muscle contracts, i. e., it responds to the stimulus; the latter is transmitted to the brain cells regardless of whether a general anesthetic is given or not. What if the stimulus is severe and prolonged? Exhaustion of the brain cells results. This is exactly what happens during an ordinary surgical operation. The activating stimuli reach the brain and if sufficiently severe and prolonged, produce exhaustion with resulting shock. Another illustration: When the anesthesia is light and the operator rough, the patient moves purposelessly about on the table, and if the anesthesia is still lighter, he makes a physical defense of self-protection. In other words he is attempting to escape from the injury. The inhalation anesthetic has done nothing more than to hold the patient in bondage while the operative injury is being inflicted.

With equal facility may exhaustion or shock be produced by great fright or severe accident. It matters little whether the stimulus is derived from injury to the physical contact ceptors, or, is received by perception through the special senses. Whatever the cause, the stimulus is always through the awakening of associative memory (phylogenetic or ancestral association). Memory of previous injuries of a similar kind always stimulate the effort to escape from that injury. Harmful or nocuous associations are called noci-associations. If all harmful or nocuous associations are excluded, this state is designated anoci-association.

PREVENTION OF NOCOUS ASSOCIATIONS

Now the next question is: Can these nocuous or harmful associations be prevented during surgical operations? Crile in experimenting upon dogs whose spinal cords had been divided at the first dorsal segment (the so-called spinal dog), applied continuous severe trauma to the abdominal viscera for several hours, without resulting changes in the respiration or circulation and without morphologic alteration in the brain cells. When the same experiment was repeated under ether, with the spinal cord intact, the brain cells revealed marked changes and the pulse and respiration showed every evidence of severe shock. From this, Crile reasoned, if it were possible, by some temporary means, to block the nerve communication between the structure to be traumatized and the brain, he would be able, in this particular experiment, at least, to prevent shock. This was accomplished by infiltrating the tissues to be operated upon with a local anesthetic. After further experiments upon dogs, he applied the principle to operations upon human beings, with the result that he has been able to perform shockless operations.

Amplifying this principle, he attempted to exclude from the operation every influence that predisposed to, or caused brain cell exhaustion and as a result we have the following points for consideration:

1. The abolishment of pre-operative fear.
2. The prevention of psychic strain during the operation.
3. The protection of the brain cells from operative injury.
4. The relief of post-operative distress.

(1) Pre-operative fear may be eliminated by giving hypodermatically an hour before operation, ¼ grain of morphin with 1-150 grain of scopolamin. Morphin abolishes associative memory. Old age, infancy and depressed vitality are, of course, contra-indications to the use of morphin.

(2) Psychic strain during the operation is prevented by an inhalation of anesthetic, preferably nitrous oxid-oxygen. This anesthetic, while not a necessary part, is an important part in the technic of anoci-association. Its greatest value lies in the protection of the brain cells. Crile found that under equal trauma, ether did three times as much damage to the brain cells as did nitrous oxid, and again that the fall in blood-pressure was two and one-half times greater under ether. Further, that excitation due to the feeling of suffocation while

inhaling ether causes a certain amount of exhaustion. Nitrous oxid is expensive and requires an elaborate outfit, but in skilled hands is probably the safest of all anesthetics. For this technic it is the anesthetic of choice, although ether or chloroform may be given. By using nitrous oxid, post-operative vomiting is frequently prevented.

(3) The protection of the brain cells from operative injury is accomplished by progressively infiltrating the tissues with one-fourth of one per cent. solution of novocain. The operator proceeds exactly as if he were performing the entire operation under local anesthesia. First, the skin is injected and incised, then in order, the subcutaneous tissue, fascia, muscle, subserous areolar tissue and peritoneum. The cutting, of course, should always be well within the blocked zone. If the infiltration has been successful, then within the opened abdomen there will be no increased intra-abdominal pressure, no tendency to the expulsion of intestines, the abdominal wall will be completely relaxed, and abdominal towels will seldom be required.

After incision of the peritoneum, if there is no acute infection or cancer in the field, then the organ or structure to be operated upon should have its communication with the brain cut off by injection with novocain solution. For example: In any part of the intestinal tract, the mesentery should be infiltrated; in operations upon the gall bladder, the base should be injected; in operations upon the uterus, tubes or ovaries, the respective ligaments conveying the nerve supply, require blocking with the local anesthetic. Since operation upon the stomach transmits no activating stimuli to the brain unless its attachments are pulled upon, this structure requires no novocain block.

It should be remembered in this connection that the rough handling of tissues is unnecessary and is an adequate stimulus for brain cell exhaustion. Mesenterics and ligaments should not be pulled upon needlessly. Retractors should be held lightly, the tissues should not be rubbed with sponges, and artery forceps should be used only to grasp bleeding points. Dissection should always be done where possible with a sharp knife. In the words of Moynihan: "All tissues should be handled lovingly." The effect of novocain lasts from twenty to thirty minutes, sufficiently long for the performance of most abdominal operations. Should, however, the time consumed, be more than one-half hour, there is no objection to again infiltrating the structures. The maximum dose of novocain is said to be .5 gram. This means that we can safely inject 300 c.c. or more of our solution: 100 c.c. is the largest quantity I have ever found necessary for the most extensive operation. An ordinary appendectomy will not require more than 15 c.c.

(4) The prevention of post-operative distress.

Post-operative pain and tympanitis have become accepted as necessary evils to be endured as a matter of course. These can be prevented in ninety per cent. of cases by the injection of one-half per cent. solution of quinin and urea hydrochlorid. This local anesthetic causes a good deal of edema and should not be injected nearer than one-half inch of the line of incision. It is my practice to defer the use of the quinin and urea until closure, when the peritoneum is injected, then the muscle and fascia, taking particular pains to keep well away from the suture line. It must be remembered, however, that if a single peritoneal nerve filament escapes the block, there will be gas pains.

THE TIME REQUIRED

The question may be asked: Does this technic consume an unnecessary amount of time? My answer is: After the technic is mastered, the increased amount of time required is negligable and is more than compensated by the following factors, viz.,

(1) It is unnecessary to pack with abdominal towels.

(2) We are not hindered by intestines frequently forced into the field.

(3) Assistance in operating is afforded by complete relaxation of the abdominal wall.

(4) Time is saved by the facility with which rectus and upper abdominal incisions may be closed. These factors more than make up for the time lost in infiltrating the tissues.

CONCLUSIONS

What advantages do we gain by the use of this principle of anoci-association? First, and most important of all is the prevention of shock. It is possible to perform extensive and time-consuming operations without shock, as shown by the fact that there is little or no change observed in the pulse, respiration or blood-pressure during or after operation. A large percentage of surgical cases are handicapped by disease, injury, age or pre-existing shock and these must be operated with but the slightest additional risk. The elimination of shock reduces the mortality rate and for this reason we are able to promise our patients greater safety. Second, there is freedom from post-operative distress in ninety per cent. of cases. Because there is little post-operative pain, there is no need for the exhibition of opiates; and as tympanitis is infrequently observed, the use of the rectal tube and the turpentine enema are seldom required. Vomiting also is rarely experienced. Third, the work of the surgeon is simplified because of reasons before stated, viz., (a) complete relaxation of the abdominal wall, (b) the facility with which rectus and

upper abdominal incisions are closed, (c) the fact that it is unnecessary to pack with abdominal towels, (d) the fact that the operator is not hindered by intestines frequently forced into the field.

Fourth, there is no need for haste as there is no shock. Fifth, where ether is given, the amount needed is not more than one-fourth to one-half of that usually required under the ordinary technic. Sixth, the work of the nurse is considerably lessened because anoci patients require very little care.

In carrying out the details of anoci, the surgeon must re-educate himself, his assistants must be especially trained; in short, in the patient's entire cycle of entrance, operation and exit, there must be no sharp points of contact either psychic or physical.

I believe, with anoci-associaton technic rigidly carried out, we can assure our patients that any ordinary laparotomy may be performed without any unpleasant experience other than that of enforced confinement to bed for a few days, and further, that inasmuch as we can promise our patients greater safety and a painless convalescence, a good deal of the fear of operations should be removed.

I wish to state that in the preparation of this paper I have quoted freely from the writings of G. W. Crile.

REPORT OF TWO CASES OF ABNORMALLY SITUATED PLACENTAE *

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Hemorrhage from the uterus, however slight, during pregnancy should always be looked upon with suspicion. A most careful examination of the patient should be made at once to determine the cause and institute the proper treatment. The various etiologic factors that enter into the causation of uterine hemorrhage during pregnancy, the various theories that have been promulgatd to explain why some placentae form at certain uterine sites cannot be taken up at this time as the time alloted will not permit. The number of etiologic factors, and the numerous theories of placenta praevia are so many and varied that the treatment must needs be somewhat empirical. The different forms of treatment will be further considered after the two cases have been described.

CASE REPORTS.

CASE 1. (PLACENTA PREVIA CENTRALIS).

Mrs. G. aged 34, came into the Maternity Service of the United Jewish Charities on April 14, 1913. She is the mother of eight children of various ages and has been marred 17 years. Her previous pregnancies were uneventful, except, as she reports, one baby was transverse. Her family, personal and menstrual history was negative. The patient was seen in the morning of April 14, 1913 as the report came to the clinic that she had lost some blood. Upon visitation the patient was found in bed with the bed and night clothing stained with blood. Abdominal examination revealed the fundus a hand's breadth above the umbilicus; fetal back to the left and anterior; small parts to the right and posterior; fetal head at the pelvic brim, mobile. Fetal heart sounds could not be illicited. Vaginal examination disclosed a roomy vagina, cervix softened and os closed. The patient seemed in good condition but owing to the unhygienic surroundings she was advised to go to the hospital where she could be closely watched. She arrived at the Woman's Hospital shortly after the noon hour and was at once put to bed. Later in the afternoon and early evening she seemed to be resting comfortably and in no pain. At 10:30 o'clock the same evening, report came that she had had a large hemorrhage. Examination showed the bed, between the thighs to be covered with a large amount of fluid and semi-clotted blood. She was at once transferred to the confinement room, where the vagina and cervix as far as the internal os were firmly packed with plain sterile gauze. Examination of abdomen showed no change from that reported above and as before no fetal heart sounds could be heard. The patient experienced no pain but her pulse was small, thready and rapid. As near as could be determined she had lost about five liters of blood. Saline transfusion, both per rectum and under the breasts was started. Labor pains soon started up and though examination of the vaginal dressings was frequently made, no further hemorrhage could be detected. At times the pulse became so small that it could not be palpated. The saline transfusion was kept up until 7 A.M. the next day, when the patient seemed to be so much better that it was decided to remove the packing. This was done with no further hemorrhage. Under light anesthesia the cervix was dilated, membranes ruptured, the hand slipped in between placenta and cervix which it completely covered, and a hasty podalic version performed. The uterus and vagina were tightly packed with plain sterile gauze. The patient reacted very quickly and despite her weakened condition, had an uneventful and uninterrupted, though somewhat long convalescence. She sat up in bed on the 18th. day and iron citrate (one ampoule) per hypodermic was started on the 26th. day. She left the hospital on the 55th. day after her entrance. Vaginal examination at time of discharge showed slight rectocele and cystocele on straining, R. V. O., cervix pointing backward with small bilateral tear, and the os admitting finger tip. Fundus was forward, moble and unsensitive. No tenderness nor induration in the broad ligament.

CASE II. (PLACENTA PREVIA MARGINALIS).

Mrs. B. aged 26, was seen in consultation with Dr. W. A. Evans on April 22, 1913. Her family, personal and menstrual history was negative. Her previous pregnancy resulted in the birth of a still born child at full term. Otherwise the pregnancy, labor and the puerperium were uneventful. Her second pregnancy had been negative and the confinement was expected in a few days. Suddenly and without any warning about 11 A.M. April 22, 1913, she had a large uterine hemorrhage. As soon as the patient was visited, about one or two hours later, it would be seen that she had lost a large amount of blood. Examination of the abdomen showed fundus uteri, two to three fingers breadth below the ensiform, back to the left and anterior, small parts to right and posterior. No fetal heart

* Read before Section Gynecology and Obstetrics, 48th Annual Meeting Michigan State Medical Society, Flint, Sept. 4 and 5, 1913.

could be heard. No vaginal examination was made. The vagina and lower cervix were packed with formadine gauze and the patient sent to the Woman's Hospital. When she arrived about 3:30 P.M. saline infusion, both rectal and mammary were commenced. The patient did well until about 10:15 P.M. when she suddenly developed pain in the left chest, air hunger and died about 10:30 P.M. Although no fetal heart had been heard, but in hopes of obtaining a living child, a Caesarean section post mortem was performed in less than five minutes after the death of the mother. The child, a fine looking boy of about 8 lbs., was markedly asphyxiated. Prolonged efforts at resuscitation failed. At the same time the uterine interior was explored. No blood was found in the cavity of the uterus, but the placental site was located far down towards the internal os. It was a marginal placenta previa. Exmination of the placenta disclosed the fact that about one third (the lower) had separated. No blood was found in the abdominal cavity nor in the vagina.

TREATMENT OF HEMORRHAGE DURING PREGNANCY.

As regards the treatment of uterine hemorrhage during pregnancy, whether due to placenta previa, to abnormally situated placenta or to the separation of a normally situated placenta, there has been a marked difference of opinion. Schwarz in a recent article says that first, no form of placenta previa, as such, ever offers a justifiable indication for Caesarean section; secondly, version after Braxton-Hicks in the presence of a viable child, deliberately sacrifices the life of the child and has no place in modern obstetrics; thirdly, the cervical and vaginal tampons and the intrauterine use of rubber bags are safe and efficient means for controlling hemorrhage and for securing sufficient dilitation for delivery through the natural passages.

These contentions of Schwarz have been severely criticized by Zinke, who is an advocate of Caesarean section as one form of treatment for placenta previa. In the two cases reported above, Caesarean section was contraindicated as the fetus was dead in each case. In a case where the fetus is alive and viable, a Caesarean section could be done without danger to either mother or child and would be the operation of choice. Where the child is not viable, the best procedure is to pack the vagina and lower cervix with plain sterile gauze, and allow the labor pains to start up. By this means the hemorrhage is checked and later the uterus emptied by its natural forces. This latter method has been performed and observed by the writer and its ease of accomplishment and its successful results have led him to consider it a most excellent method of handling uterine hemorrhage during the early months of pregnancy. It is both foolish and impossible to make or devise any fast set of rules for the treatment of any form of uterine hemorrhage from whatever cause it may be due. Each case must needs be treated accordingly to the findings present.

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THE ABDOMINAL CUTANEOUS REFLEXES IN THE DIAGNOSIS OF ACUTE ABDOMINAL DISEASES *

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I wish to report to you some work we have been doing with the abdominal cutaneous reflexes, and their behavior in some of the more common, acute diseases within the abdomen. This report must be regarded simply as a preliminary one; I feel that there are still many important points that need further investigation.

Besides a considerable number of informal observances, we have a list of nearly 100 recorded cases in which the condition of the reflexes was noted previous to operation, and the exact pathological conditions observed when the abdomen was opened. A few of these were incomplete and will, therefore, not be used in our preliminary report. The actual number of completed cases, however, was over eighty, and this number, small as it is, has convinced us that a considerable amount of value may be attached to the behavior of this reflex in the diagnosis of the acute abdominal lesions. It has no value in the more chronic ones.

TECHNIC.

The presence or absence of this reflex has been a diagnostic sign but little employed by

* Read before the Surgical Section of the Michigan State Medical Society, at Flint, Mich., September 4-5, 1913.

American surgeons though well known to and used by the neurologist. The literature on the subject has been quite limited in extent and comes almost entirely from European sources. It is produced by drawing a lead pencil or other dull instrument lightly over the skin of the abdomen on either side of the median line in the lower and upper quadrants. A practically simultaneous fleeting contraction of the corresponding rectus and oblique muscles takes place, and when well marked the umbilicus is drawn slightly toward the point of irritation. Experience shows that some little care must be exercised in order to obtain reliable results. For practical purposes we have distinguished four reflexes, as just intimated: two of the upper and two of the lower abdomen—one on either side. It is necessary in making the stroke that the instrument does not encroach upon any area except the one to be investigated. It is also necessary that the stroke be gentle, for otherwise it is possible to produce a voluntary contraction which might confuse one. The experienced observer easily distinguishes this from a real response: (1) because the movement distinctly follows the stroke and is not simultaneous with it; (2) the movement is a more general one and often not limited to the muscles of the abdomen. The gentleness of the stroke is peculiarly necessary in acute abdominal conditions, since here one is apt to find an hyperasthesia of the skin, easily resulting in pain under little irritation. The apprehension of the patient may also be so marked that he draws away in anticipation of being hurt. These difficulties are, as stated, easily overcome with a little experience.

THE PRESENCE OF THE REFLEXES.

The abdominal reflexes are present, according to the most careful observers, in almost all healthy individuals under 50 years of age[1]. We have frequently seen a ready response, however, in patients much older. Two exceptions should be noted: (1) In women who have borne a number of children, and especially those whose abdomens are much relaxed. It has been stated that by standing these individuals on their feet and, therefore, putting the abdominal walls under tension, that the reflexes may thus be elicited. We have not personally verified this observation. (2) In obese individuals they are very apt to be lacking. This we have often observed. We must assume that the individual is otherwise healthy, or at least possesses no disease of the nervous system which would interfere with their proper reaction.

DIAGNOSTIC VALUE.

The diagnostic value that may be attached to this skin reflex is the fact that in certain acute abdominal conditions it is commonly diminished, or abolished, either just immediately over the quadrant containing the lesion or further away in other or all quadrants. In other words, it may be local or general.

Chronic conditions, as stated, including tuberculosis, carcinomatosis, ascites from any cause, do not materially affect it. It is stated that in the course of every typhoid fever, in either adult or child, it is diminished or abolished. Of this we have made no personal observation.

In our series we have also noted the presence of rigidity, or its absence in connection with the condition of the reflexes. We may divide our cases into several groups.

AUTHOR'S OBSERVATIONS.

As might be surmised, the largest group is that of acute appendicitis. Here the presence of rigidity and the involvement of the reflexes commonly went hand in hand. In some of the very mildest cases, those in which the inflammation is distinctly limited to the appendix, and though acute, of very mild degree, or more sub-acute or chronic, all the reflexes were present. In those in which there was greater and more acute involvement, usually attended by more or less serum or pus about the appendix, the reflex was commonly abolished over the right lower quadrant. In some the other reflexes, either on the same or opposite side, were diminished or gone. When the involvement was still more extensive, with extravasation of free pus, the reflexes were abolished everywhere in most instances. There was one notable exception to this—a young man with an acute inflammation of the appendix present and a considerable amount of serum, who was rigid but who had all the reflexes present. In all cases in which an extensive peritonitis was present the reflexes were totally abolished. In one or two instances in which a considerable amount of involvement was present, and in which we found the reflexes active, an explanation could be found in the fact that the appendix was well buried, either in the outer gutter or well beneath the head of the caecum, and the peritoneum above and around it not involved.

Abdominal rigidity varies greatly in degree. It is sometimes difficult to state whether it is really present or not, and this is especially so when there is considerable distention, putting the wall on tension. The behavior of the reflexes under these conditions may be of some little aid. When the rigidity is wanting and the abdominal infection a severe one, the absence of the reflexes was noted in all but one of our cases.

A second and smaller group was that of intestinal obstruction. Here we noted that not

1. The upper reflexes are occasionally lacking without known reason in healthy individuals in whom the lower ones are present.

only was the rigidity commonly absent but that the reflexes were also not involved. As distention is commonly present, making the rigidity sometimes uncertain, the presence of the reflexes speaks strongly against an acute infective process or a peritoneal complication. In one instance, that of a woman with a strangulated bowel—due to Meckel's diverticulum—who was very much distended and apparently almost moribund—pulse 150 and weak—the presence of the reflexes led us to infer that she was not suffering from a rapidly spreading peritonitis, and such was shown to be a fact. The abdomen contained bloody serum and twenty inches of gangrenous bowel. She recovered after a stormy convalescence following resection.

A third group was that of ectopic pregnancy. Following the outpour of a large amount of blood in the cavity, we found that the reflexes were sometimes gone and sometimes present. The one point that this brought out was that such a condition was possible within the abdomen without involvement of the reflexes.

In four cases of perforated gastric or duodenal ulcer—unfortunately not fully recorded—rigidity was present and the reflexes were absent in three. In the last case, however, with very mild rigidity there was much gas present in the abdominal cavity with but little stomach contents—the reflexes were mildly present everywhere.

In a miscellaneous group, which completes the series, we are unable to draw conclusions because of the smallness of number and variety of conditions present.

We might say, however, that other observers have noted the absence of the lower abdominal reflexes in acute intra-pelvic infections so that this sign could not be used to distinguish between an appendiceal inflammation and that of the tubes. In a few cases of acute inflammation of the gall bladder, we have noted the absence of the upper abdominal reflexes. Since the upper reflexes, however, are more commonly absent in healthy individuals than the others, their presence or absence is not here of special value. We believe from our observations that the behavior of these reflexes is worthy of further study, and that although when taken alone it has but little diagnostic worth, still, in association with other symptoms, may be very valuable in the diagnosis of acute abdominal diseases.

Subacromial bursitis resulting from indirect violence (the usual cause), is often, if not always, associated with and due to injury to the supraspinatus tendon. A calcareous deposit often forms in the tendon which in the X-ray plate, must be distinguished from fracture of the greater tuberosity.—*American Journal of Surgery.*

STENOSIS OF CERVIX UTERI; TREATMENT BY A NEW METHOD *

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The anatomist in describing the cervix uteri, divides it into two portions; namely, supravaginal and vaginal. To the palpating finger, the vaginal portion feels like a hard, smooth projection with a central depression, or slit—the external os, or os uteri, or mouth of the uterus; these terms being generally applied to the entire vaginal portion of the cervix rather than to the orifice itself. The cervical canal expands somewhat on passing from either end toward the middle. The mucous membrane of its anterior and posterior surface presents a series of remarkable folds constituting the *arbor vitae uterinae.* Running axilly along each wall is a slightly elevated ridge, or column, from which arises a series of pinniform folds—plica palmatae, which divide and sub-divide, the wall presenting the appearance like the ribs of a leaf. The folds are so arranged that those on the opposite sides of the neck fit into each other.

In early embryology, the cervix was the original structure, the uterus and adnexa appearing later. This has been thoroughly demonstrated by Tandler and Zuckerkandl in the Anatomical Museum in Vienna, and these results are given in the Anatomy, published by these gentlemen. This being the case, the position of the uterus must depend on its relation to the bladder and rectum. Thus the uterus is supported and not suspended—the ligaments assist in a measure in maintainng postural uniformity of the uterus—with the abdominal pressure and the vaginal pressure; in short, the uterus has a relation to the pelvic floor.

Realizing the far reaching phases of this subject and its contingencies, the writer will endeavor to confine his time to the main features of this very important theme. A large proportion of the pelvic troubles of womankind are of a functional character; that is to say, they depend upon a defective circulation and an innervation of tissues rather than upon any morbid pathology. Woman's life between certain ages is characterized by menstruation, a physiological function, and, in order to maintain health, it must be performed just like any other secreting process—without any feeling of pain or discomfort whatsoever. Any deviation from this physiology has a cause in the internal genitalia: imperfect development in the cervical canal, which is inherited; or from inflammatory causes which produce fibrous structures, infections, tears or lacerations,

* Read before the Section on Gynecology and Obstetrics, 48th Annual Meeting Michigan State Medical Society, Flint, Sept. 4-5, 1913.

caustics or amputation of portio. Stenosis, when congenital, usually affects the entire canal; the acquired being dependent upon some inflammatory cause—in the latter, the swollen follicles rupture and the granulating walls adhere.

Among other causes for acquired stenosis are trauma, severe operation during parturition, puerperal inflammation, ulcerations, adhesions of granulating surfaces after operations, curettements, cauterization after amputations — the scarring forming afterwards. Stenosis of cervical canal may be caused by tumors and also by flexions and versions.

Precisely what degree of narrowing of cervical canal it is which constitutes a pathological stenosis, is, in practice by no means easy to define. In case of congenital stenosis, the diagnosis is comparatively easy, for the os uteri externo is then always extremely small; often the aperature is no larger than a pin's head; a very fine probe can be passed through it, but with considerable difficulty. The advance of the probe seems to meet with opposition along the canal to the internal os. In cases of acquired stenosis of a pronounced type, the diagnosis is difficult owing to the small size of the orifice and the fullness of the surrounding tissues. The aperature is diffieult to locate with the examining finger—Olshausen insists this type is invariably pathological, particularly so in cases of dysmenorrhea and sterility.

In total stenosis, there is no lumen whatever. The obliteration may be at the external or internal orifice, causing loss of epithelum, granulations and connective tissue formations later. Stenosis is immaterial until the beginning of menstration. If it exists, the menses collect above the constriction, causing dilatation of the uterus above this point; if the external os is closed, the entire uterus and the cervix dilates, the walls may be thick or thin. In case of stenosis of the internal os, the cervix remains unchanged, only the body of the uterus is dilated; the tubes may also be dilated, which is not caused by back flow of blood from the uterus, but hemorrhage which takes place in the tubes independently. It is not an uncommon thing to find stenosis in the entire cervical canal, os uteri externo, and, in rare cases, the os uteri interno.

DYSMENORRHEA.

Now the one malady of the many disturbances which would result from this lesion is dysmenorrhea; stenosis being the commonest cause. Much has been said and written about dysmenorrhea and its treatment—lamentable in efficiency—tampons, douches, drugs and pessaries, all falling short as remedial means.

Schauta, of Vienna, distinguishes a mechanical, an inflammatory and a nervous form of dysmenorrhea; mechanical dysmenorrhea most frequently due to stenosis or flexion of the canal of the cervix in some part of its course from the internal to the external os, depending upon various conditions. In inflammatory dysmenorrhea, we have to contend with an inflammatory process or an excessive tension of the intrapelvic organs—abnormal distension of the blood vessels. To this same category belong the ovarian and fallopian dysmenorrhea. In nervous dysmenorrhea, no anatomical change is apparent, but a morbid increase of sensibility of the nervous system, due to congestive distension of the intrapelvic organs at that period. To arrive at a thorough understanding of the case, a most careful and painstaking examination should be made in order to seek out the etological factors and then decide on a simple, adequate form of treatment. The treatment should be a form to give permanent relief. Now I am speaking with reference to stenosis of the cervical eanal. Dilatations have proven ineffectual, and in the majority of the extreme conditions, the stem pessary is quite inadequate or ineffectual; therefore, we must resort to some simple surgical means. It is true in many of the simpler forms, a careful dilatation of the cervical canal by means of Hegar's graded hard rubber bougies will correct the ailment, and, with the aid of sexual stimulus of marriage, may be permanently cured by pregnancy.

However, for the most pronounced type where massage and dilatation fail, there is one means which obviates mutilation by the following technic:

The patient is anasthetized and placed in the lithotomy position. The hair should be clipped short by scissors and the internal genitalia cleansed with soap and hot water and the vagina douched with a weak iodine solution. The posterior wall of the vagina is depressed by means of speculum, and posterior lip of the cervix is seized by tenaculum forceps and drawn down. In introducing the uterine sound, it is very important to proceed slowly in order to determine the direction of the cervical canal. Sometimes a little rotation in one direction or other assists its ingress. After the direction of the cervical canal is thoroughly understood, Hegar's hard rubber bougies are introduced in rotation, leaving each one in situ for a few seconds, following the same procedure in each introduction. When a dilator is used, gentle pressure is made upon the handles for several seconds, relaxing and rotating the dilator a quarter of a circle and again making pressure, at no time using undue force.

I do not advise euretting. It seems to me a practice most unscientifically resorted to with

no particular aim in view, and the dangers consequent upon such practice are serious—that of conveying infection to the uterus proper. In the event that curettment is indicated for some fungoid material, it should be done in the most thorough and painstaking manner, and the products should be thoroughly washed out by means of double current uterine catheter and the endometrium painted with Churchill's iodine solution. It is always advisable to have a microscopical examination made of these scrapings to determine their character.

The tenaculum is removed and the anterior lip of the cervix is seized by a volsellum forceps and held as an assistant; the lateral borders being grasped by tenaculum forceps, and held by an assistant; a straight scissors is used in dividing the posterior, or under lip, to the internal os. A curved needle with a silk or No. 1 cat-gut is introduced, catching the mucous coat and brought through, taking up the mucous coat posteriorly; the ligature is tied. The same procedure takes place on the two lateral surfaces of the wound. The vagina is packed with sterile gauze which is left in position 24 hours. The patient is placed in bed for ten days, after which she is allowed to return to her home.

Having performed this simple operation in several cases, in every instance, results after a lapse of one, two and three years have been most satisfactory. In examining these patients per speculum, there is no evidence of any incision and, while the walls are not adherent, yet they come so closely together that it is most difficult, under ocular inspection, to note that a separation of the parts had been made.

CASE REPORTS.

Case No. 1.—Miss X. Age 26; single; dysmenorrhea since childhood; florid countenance, very nervous and more or less depressed in temperament. Each menstrual period scanty; dark colored discharge. During this time she was confined to her bed. March 20, 1910, I examined her and found congenital stenosis, the constriction being through the whole course of the cervical canal. May 10, 1910, made a section of the posterior lip, which afforded good drainage. Since that time, she has married and given birth to a child.

Case No. 2.—Mrs. R. Age 44; married, never menstruated over one day; always severe pain before and during and for several days afterwards; very neurotic, particularly during this session; always subject to colds and attacks of severe cough. On examination, found a fibrous cervix most difficult to dilate. On January 26, 1912, I made a section of the posterior lip, and her general condition has been all that could be expected;—a pronounced improvement.

Case No. 3.—Mrs. T. Age 28; married; from girlhood she gave a history of scanty menstruation; always pronounced pain during the menstrual, sometimes going into unconsciousness. A peculiar feature of the case was in the exuberance of hair scattered over the body, particularly the lower extremities. I speak of this condition because I have noticed it before in cases of scanty menstruation. On examinaton, I found a firm fibrous thickening about the middle of the cervical canal, which would hardly respond to bougie dilatation, so I made a section and since that time, she has had menstrua tions of two or three days' duration, comparatively free from pain.

Case No. 4.—Mrs. W. Age 35; married; one child 10 years old. At the time of its birth, she had a very difficult labor, lacerated and repaired at the time. She had a fever about two weeks after the birth of her child, and experienced more or less pelvic pain from that time on; menses were practically absent—hardly a showing. Examination revealed an old cervix repaired, the cervical canal almost obliterated and the structures about very much thickened. On July 15, 1913, I made a section of the posterior lip and removing a V portion of scar tissue on the lateral portion. Since that time, she has been away on a vacation and reported to me a few days ago that she felt she was entirely well, referring particularly to the absence of pain and nervousness.

In all of these cases, I made it a point to get free, ample, drainage.

Drugs Sold to Dispensing Physicians

An investigation of drugs sold by "physicians' supply houses" has been made in the A. M. A. Chemical Laboratory. The products examined were morphin tablets, potassium iodid tablets, fluidextract of goldenseal, Fowler's solution, zinc ointment, and fluidextract of digitalis. The report concludes that although the examinations do not cover a wide field, they are sufficient to show that the random charge of sophistication and adulteration which has been repeatedly made against "physicians' supply houses" is unjustified. On the other hand, the examination shows that the products put out by this class of firms, without being sold at a materially lower price, are less reliable than those of the pharmaceutical houses. The report then closes with a discussion of the "specialties" put out by this class of firms: "When one compares this class of preparations as put out by the two classes of firms one is struck with the fact that the specialties of the 'physicians' supply houses' are a little more unscientific, a little more devised to mislead or cheat the user, are a little more brazen in their imitation of fraudulent and worthless proprietaries and more deliberately aimed to satisfy the unthinking physicians than are those of the 'regular' pharmaceutical manufacturers." (Jour. A. M. A., Sept. 13, 1913, p. 855).

Disease Superstitions.

The belief is common among primitive and unlettered people that there is a specific remedy for every disease—an herb for every ill. The people must be taught that disease is not an accident or a dispensation of Providence or the infliction of an evil spirit, but the result of environment and the result of the mode of living. They must learn that health does not return by magic or by magic compounds; but must be restored by a personal battle against disease. (Jour. A. M. A., Sept. 13, 1913, p. 884.)

The occasional occurrence of subperiosteal fracture of the patella should be borne in mind as a possible explanation of continued disability after trauma or muscle violence. It is only one of the conditions that radiography may elucidate which other means of examination of the knee fail to reveal.—*American Journal of Surgery.*

TRANSACTIONS

OF THE

Clinical Society of the University of Michigan

Stated Meeting, November 12, 1913

The President, R. BISHOP CANFIELD, M.D., in the Chair

Reported by REUBEN PETERSON, M.D., Secretary

Reading of Papers

STUDIES ON THE ETIOLOGY AND TREATMENT OF GONORRHEA.

CARL C. WARDEN, M.D. (Michigan '95)
LOS ANGELES, CALIFORNIA.

The diagnosis of gonorrhea has been in part based on the microscopic appearances of stained smears made from the purulent discharge. Probably in a majority of cases this procedure is adequate in the early stage of the disease, since the microscopic picture is then characteristic and invariable, but as has been stated by Schwartz, McNeill and others, the diagnosis of chronic gonorrhea depends upon cultural methods aided by the complement fixation test. As these authors have stated, the positive gonococcus complement fixation test means the presence of a focus of gonococcus somewhere in the body. Late in the course of the disease the test becomes negative and gonococci cease to appear in cultures, yet it is common experience to observe intracellular cocci in the exudate. The question arises whether the usual microscopic examination of smears is a safe criterion of the presence of gonococci. In a recent article[1] I endeavored to show that many, if not all, the intracellular, biscuit shaped and Gram negative cocci which make up the diagnostic picture may not be gonococci at all, but are organisms

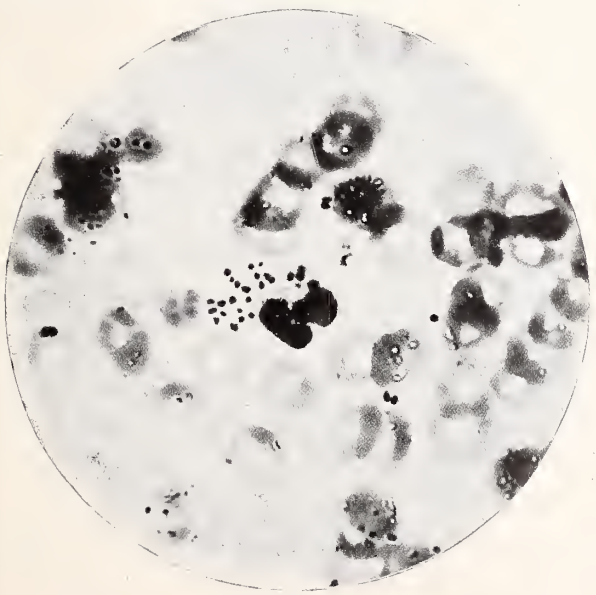

Fig. 1

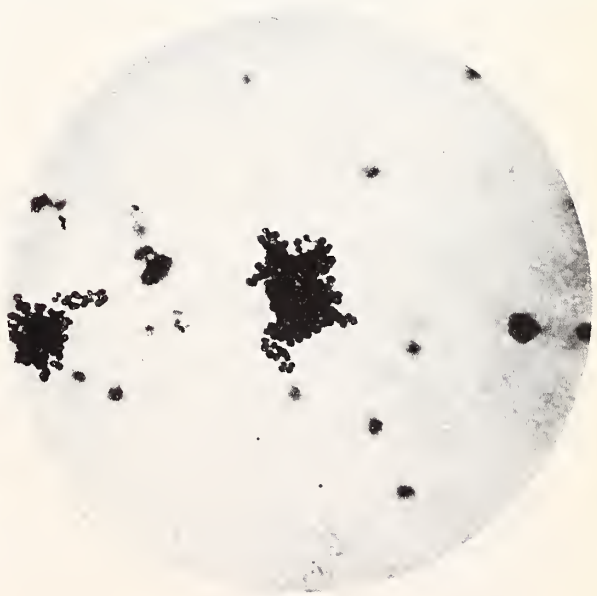

Fig. 2

of the species staphylococcus, and I based this conclusion in part on the following observations:

1. The normal urethra is the habitat of a staphylococcus albus, to which I have given provisionally the name of staphylococcus urethrae which is capable of taking on virulence (infestiousness) under certain conditions just as the coccus of Welch in the skin and the staphylococcus in the throat.

1. Journal of the Infectious Diseases, July, 1913.

Dried, dead, sterile gonococci, gonococcus autolysate and sterile tryptic ferments when placed within the healthy urethra cause transient discharge in which intracellular biscuit shaped cocci are demonstrable.

2. The staphylococcus urethrae is invariably present in cultures from gonorrheal urethritis. Pure, or almost pure cultures of gonococcus are exceedingly rare, and as I have stated elsewhere, appear to have special significance of impending epididymitis.

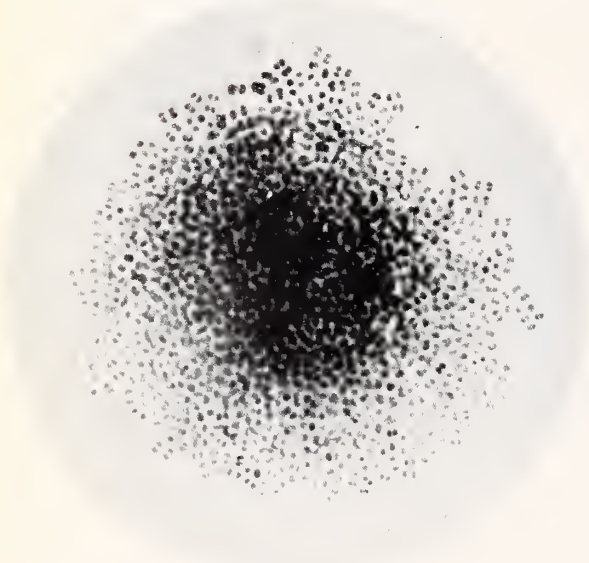

Fig. 3

3. The staphylococcus, ordinarily positive to the Gram stain, may lose the stain in the presence of serum and leucocytes. The diagnostic picture of gonorrheal pus smears may be reproduced artificially, in vitro, with staphylococcus, whereas it has been impossible to do so with gonococcus.

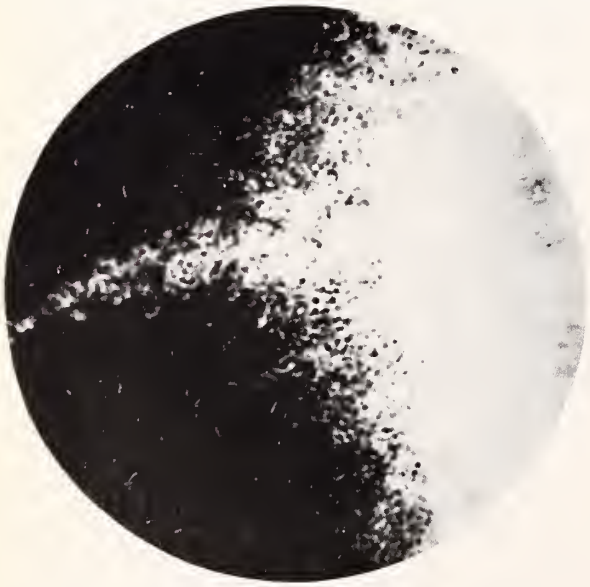

Fig. 4

4. By special methods of cultivation it is possible to observe the growth and multiplication of the intracellular cocci, and their development into colonies. In the same cultures the development of the gonococci may be studied and the differences in characters of the two organisms noted.

5. The staphylococcus in the presence of human serum or ascites in hydrocele fluid normally develops as a biscuit shaped diplococcus, and in this form is capable of losing the Gram stain. On ordinary media the diplococcal form is rarely seen, the individuals being spherical, clumped and positive to the Gram stain.

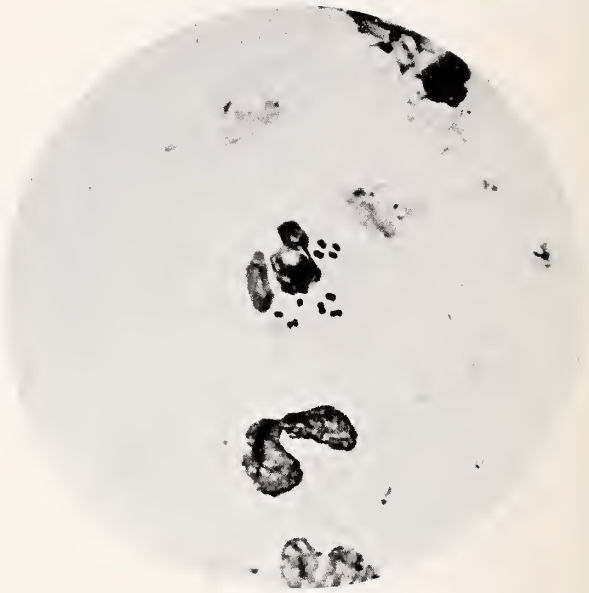

Fig. 5

Fig 6

6. The gonococcus upon the same body-fluid media is distinguished by its irregularity in size, morphology and staining. The biscuit form is not characteristic. It stains feebly with methylene blue, even with heat, and the individuals seldom show clear-cut outlines, many being shadowy. Autolysis is one of the

most prominent characters and it to be observed in the youngest colonies.

7. There is little or no affinity between the virulent gonococcus and the leucocyte. The gonococcus ferment, like the leucoprotease of the pus cell, is tryptic in character, and the latter especially is fatal to the growth of the organism.

8. The gonococcus does not produce true abscess in animals or man, that is, it is not a pus producing organism. The products of disintegration (autolysates) are toxic and will cause sterile exudates. The staphylococcus, on the other hand, is a pus producing organism.

These observations and others have led me to infer that the staphylococcus which has been regarded largely as a concomitant and accidental organism may be assigned a definite place in the etiology of gonorrhea. A casual relation to the disease we may believe would scarcely assure the formation of antibodies in the serum of the gonorrheic patient, whereas the serum of such patient possesses at certain periods some degree of staphylococcus lysin immune opsonins, and produces deviation of complement. There is never at any time during the course of an uncomplicated case of gonorrhea very considerable antibody formation either to staphylococcus or gonococcus, else the symptoms of illness would be more pronounced. Antibody and antigen affect slight combination so long as the latter is remotely confined to the urethra, but once bacteria reach the epididymis or the joints, symptoms of constitutional reaction appear.

A further inference assigns the staphylococcus and gonococcus to a symbiotic relationship in the disease. Just what factor is responsible for the heightened infectiousness of the staphylococcus is not altogether clear. Evidently the ferment of the gonococcus is not alone this cause. The simplest explanation appears to lie in the life and growth of the gonococcus, and the stimulus is manifest throughout the diesase and apparently persists often long after gonococci have disappeared from cultures and complement fixation has ceased.

How extensive a rôle the gonococcus plays in epididymitis and arthritis is problematic. My own cultural experiments lead me to believe that here the staphylococcus has an important part. A striking symptom of epididymitis is the cessation of the urethral discharge. I have been able to produce a like diminution by inoculations of dead staphylococci, but not with gonococci. At all events the symptom is due to autoinoculation.

If the staphylococcus occupies the place assigned to it the next inference would be that any treatment not directed against it, as well as against the gonococcus, must be erroneous. Gonococcus antisera have proved disappointing. Gonococcus vaccines appear to serve little purpose. When fresh they may be toxic, and when old they are quite inert. It is my belief that it is possible to develop a method of treatment along immunologic lines which will meet the exigencies of the double infection. Such a method aims to supply the body of the infected individual with the antibodies which it appears to be unable to manufacture in large amount for itself, by means of an immune serum, and at the same time to create in the patient's system an active immunity by introducing antigen, or in other words by inoculating with staphylococcus suspensions. By this means, a combination of active and passive immunization, it is expected to assist the body in speedily overcoming an infection which is so localized and remote from the factory of immunizing substances that ordinarily the response is very slow. This expectation has been fulfilled sufficiently in practice to warrant further effort. I am at the present time working on such biologic products and shall soon be prepared for a more extended trial of them.

DISCUSSION.

Dr. Udo J. Wile: The paper of the evening is certainly instructive to all of us. I am certain that many cases of gonorrhea are overtaxed as the result of finding intracellular organisms which are thought to be gonococci but are, according to Dr. Warden, unquestionably staphylococci. The demonstration of the staphylococcus invariably in gonorrhea suggests that there may be a symbiosis and one wonders whether or not the staphylococcus may not be responsible for the purulent character of the disease. Weight is given to this possibility by the fact that gonorrheic conjunctivitis is always purulent. The staphylococcus is a normal habitant of the conjunctiva, whereas we assume the gonococci alone to be responsible for gonorrheic arthritis, in which case the exudation is not purulent. In connection with epididymitis it has been suggested that the cessation of the discharge from the urethra is due to the high temperature, it being a fact that the gonococcus cannot survive long at a high temperature.

The close similarity of the meningococci and gonococci has been made use of by Heitz-Boyer of Paris, who uses very successfully a vaccine of meningococcus in the treatment of gonorrheic arthritis, epididymitis, and orchitis.

Dr. Frederick R. Waldron: There seems no question but that Dr. Warden has proved that our morphologic diagnosis of gonorrhea is not conclusive and that the typical intracellular Gram-negative diplococci are not gonococci. I do not think he has emphasized enough the work I have seen him do in his laboratory. He takes cultures from a case of gonorrhea and shows in his ascitic fluid slide cultures we have always taken to be typical gonococci, intracellular Gram-negative diplococci, developing step by step into large colonies from which he takes subcultures. These pure cultures retain their original characteristics while grown on special media at body temperature and can be put abundantly into leucocytes where they make a typical picture of gonorrhea. But this same culture will grow on ordinary culture media, lose its Gram-

negativism and revert to the typical round staphylococcus form and vice versa. The real gonococcus he shows to be an organism behaving in a radically different way.

I am convinced that we must be rather careful about making a final morphologic diagnosis of gonorrhea. However, I am not convinced that typical clinical gonorrhea, smears from which show the generally accepted picture, cannot be safely treated as such, whether it is a case of symbiosis or reversion.

The great importance of Dr. Warden's work, aside from its pure scientific value and its suggestions as to Gram-negativism, seems to be its possibilities, so far as the making of vaccines and immune sera is concerned. Anyone who has used these agents in the treatment of chronic gonorrhea and its complications cannot fail to be impressed with what they accomplish in a certain percentage of cases. Many cures in from twenty-four to seventy-two hours of cases of very acute gonorrheal rheumatism of the most typical kind can be ascribed to no other agent than the vaccine. Serum treatment, also, is often followed by an immediate disappearance of the organisms from the discharge in many chronic cases. Yet the many absolute failures with both agents leave much to be desired. This may be entirely changed by Dr. Warden's work.

Whether the brilliant results were due to gonococcal or to a peculiar staphylococcal vaccine cannot be known as he has often found that commercial gonococcal vaccine was being derived from a Gram-negative staphylococcal culture. That there is abundant clinical evidence of a symbiosis of a mixed infection, is supplied by the mixed vaccines furnished by the drug houses for years.

I cannot agree with Dr. Wile in regard to the reason for the often observed cessation of the discharge during an epididymitis and sometimes the apparent permanent cure of the disease. Concurrent fever due to something else might do the same thing, but this I have never observed. It is much more probable that the improvement and not infrequent cure is due to an autoinoculation.

In fact there are many things of just this kind that point to vaccine and serum therapy as being our great hope in the cure of this stubborn and dangerous disease. The character of the work demonstrated to us this evening gives us every reason to expect that Dr. Warden will be able to carry it to its logical conclusion.

Dr. D. M. Cowie: A point which Dr. Warden has not emphasized is the beautiful method he uses for the study and differentiation of the gonococcus colonies. With the materials at hand it is almost as easy to do this as it is to make the ordinary smear preparations. I have had the pleasure of going over this work with Dr. Warden and have been convinced of the practicability of the method in clinical work. The films of ascetic agar are spread on sterile slides; they are then put in a large Petri dish and placed in an incubator. From five to ten slides are easily accommodated in the Petri dish. A small dish of sterile water is placed in the dish to supply moisture. The next morning the slides are examined under the microscope with the one third objective. There is absolutely no difficulty in differentiating the very characteristic gonococcus colonies from the staphylococcus colonies. I believe this method could be made use of in the study of other micro-organisms of clinical importance.

Dr. James G. Cumming: Dr. Warden's work is not only interesting but very important inasmuch as it throws light on the evolution which the gonorreal organism may pass through. I think any of us who have grown the organism on artificial media have noted the variation in its characteristics with the Gram stain. Dr. Warden's explanation of this and his demonstration by the slide method is original and of great value.

Dr. Warden (closing): I have done considerable work on epididymitis cases, and it hardly seems possible that the elevation of temperature could of itself cause the cessation of the discharge. A like cessation follows inoculations with staphylococcus, which procedure scarcely ever produces fever. By my method of culture one may observe the marked diminution of staphylococcus colonies both in cases of epididymitis and in those inoculated artificially, while the gonococcus colonies persist for some time.

The gonococcus is not a pus producing organism. My experience has been the reverse from those who claim that gonococcus only is to be obtained from the joints in gonorrheal rheumatism. I have never succeeded in growing the gonococcus but have invariably cultivated the staphylococcus.

The meningococcus strongly resembles the gonococcus. It is noteworthy that staphylococcus occurs in the cerebrospinal fluid in about 30 per cent. of diplicoccus meningitis cases.

The question of relationship between the gonococcus and the staphylococcus is puzzling to me. While I have inclined to the idea of symbiosis, nevertheless I am unable wholly to get away from the possibility of direct biologic relationship through variation.

DESCRIPTION OF ILLUSTRATIONS

Fig. 1. Proliferation, on ascites agar, of artificially phagocyted staphylococcus urethrae, one hour after inplantation. X 1200.

Fig 2. The same, young colony at 6 hours. The leucocyte has been overgrown. X 1200.

Fix. 3. The same, young staphylococcus colony 18 hours old. Shows the normal morphology of the organism on serum medium. Gram negative. X 1200.

Fig. 4. Margin of gonococcus colony 24 hours old.

Fig. 5. Smear from artificial urethritis, gonococcus excluded.

Fig. 6. Gram negative, intracellular, biscuit-shaped cocci, identical with smears in gonorrhea, produced artficially with staphylococcus urethrae.

Reports of Cases

A CASE OF TRANSCORTICAL MOTOR APHASIA.

Albert M. Barrett, M.D.

Professor of Neurology and Psychiatry, University of Michigan.

(From the Psychiatric Clinic, University Hospital, Ann Arbor, Michigan.)

I desire to present a patient with an aphasic disorder of speech which suggests the type of the transcortical motor aphasia. The case is that of a woman, who is a patient in the Psychopathic Hospital and is now sixty years old. Her mother had been childish in her old age. The account of her own life given by her relatives developed nothing of importance, except that her school training was limited, as she did not get beyond the third reader. She, however, had learned to read and write and was described by her sister as a "brilliant and witty young woman."

About two and a half years ago she had

an apoplectiform attack. For a short time she was motionless, then began to talk and "spoke as plainly as she does now." She showed no paralysis and a few days later returned to her work. She performed her household duties acceptably until the spring of 1913, when her work was badly done and her memory much impaired. At times she was abnormally irritable. There were expressions suggesting delusions, such as "Blood had run out of her side." "At nights she had seen her dead parents." In this condition she came to the Hospital.

Physically she showed the appearance of early senility. The heart was not pathologic, and the blood pressure was 110. The blood and cerebrospinal fluid showed no pathology. The right hand grasp was a little less than the left and there was difficulty in the tests for muscle coordination. The important disturbance for our purpose here, was in the field of language. A summary of a large amount of material obtained from many examinations gives the following information:

She always understood the purposes of the examination and gave good attention until fatigued. She often became agitated at her inability to do things as she should and sometimes cried. There was usually a long delay before giving the desired reaction. She was right handed and showed good preservation of tone appreciation.

Reaction to words heard: Simple commands were always understood. When several commands were given in succession she correctly understood the first and often the second but rarely any more. Her attitude in these instances seemed to indicate that she could not remember what was asked. She correctly composed a number of words of from three to five letters when spelled to her. There was no paraphasia or perseveration in her verbal responses, but frequently, when fatigued or when several requests had been given in succession she found it difficult to free herself from a previous action.

Picking out objects when named: This was correctly done when the objects were at all familiar.

Reaction to things heard: She correctly recognized a number of objects from their characteristic sounds.

Repeating words and sentences from dictation: All words and simple sentences were correctly repeated without paraphasia. Longer sentences were often repeated in fragments as if she could not remember all that had been given.

Spontaneous speech: On the ward she spoke but little. She would answer questions and occasionally would volunteer a limited conversation. Usually when addressed on the visits of physicians she would answer without hesitancy questions regarding her health but there would be no further response until another question was put. Sometimes she could repeat the alphabet correctly but usually she would stop before she finished and then could not pick it up again at the place she had stopped. When prompted she would usually go on correctly. Sometimes numerals were intermingled among the letters. Counting showed the same difficulty. She spelled a few simple words of from three to five letters correctly but in the majority of instances a few letters were correct and others were wrong. Usually the number of letters in a word were correct and the incorrect letters given had some resemblance to those desired as: tree was spelled "troo". Michigan was started "Mig".

Reaction to things seen: It could not be demonstrated that there was any hemianopsia. Any exact determination by the perimeter was out of the question and the disturbances in her speech made even the reactions to rough tests unsatisfactory. Whatever tests were made did not suggest hemianopsia. She was presbyopic but there was no marked decrease in her visual acuity. She correctly named most familiar objects when shown to her. Pictures of many complicated structures such as machines she did not name. Scenes containing a number of figures in action were poorly described.

Reaction to words seen: The letters of the alphabet and numerals were usually correctly identified. A few simple words of from three to five letters were very rarely correctly given. Her name she usually picked out correctly. She was totally unable to read sentences, headings in newspapers or printed or written requests.

Reaction to things smelled: Wintergreen was called perfume but was not named more specifically. Further tests gave no correct reactions.

Reaction to things tasted: Salt was correctly identified. Vinegar was called sour.

Reaction to things felt: From both right and left hands she correctly identified the forms of a few geometric figures and correctly named a number of familiar objects.

Writing: She was totally unable to write. She usually began the test as if she would be able but the characters made had little resemblance to those desired. Copying was only possible in a few instances when she traced a few forms by following close to the lines of the figure.

Mimic and gestures: In no instances did she correctly react to motions indicating desired actions.

The internal language: It seems probable that in large part the internal language was preserved. The fact that she spelled many

words correctly and that, in her attempts at writing, the number of characters had a near relation to the number of the proper word would indicate this. The tests of Onuf and Liepmann were unsatisfactory owing to the apraxic disorder.

Apraxia: In most of her motor reactions there was a delay between the reception of the request and the execution. In repeating words and naming objcts the response was fairly quick. In executing commands there was a marked delay as if puzzled how it was to be done. A good example of this was the reaction when asked to point to her nose with her right hand. She looked at her right hand, moved her arm about, placed her hand on her knees and kept it there. When the command was repeated she put up her hand hesitatingly slowly approaching her nose and then grasped it as if pinching it. Asked to put her left hand on her forehead she put out both hands, looked at them in a puzzled way as if trying to decide which was the left, after having correctly decided she held it up and looked at the examiner as if not knowing what to do with it. When the command was repeated she placed the hand on her head.

She understood the use of objects such as a comb, glass, knife and fork and pencil. There was always much difficulty in their use but never were they used incorrectly. She was shown a comb and asked what it was used for. She replied promptly "to comb the hair." When asked to use it she took the comb in her hand, turned it about, fingering it in various ways, hesitatingly reached it up towards her hair and finally used it correctly.

The results of the examinations show that there is present an almost complete alexia, a total agraphia, diminished spontaneous speech, preserved repeating from dictation and a marked difficulty in the correct starting of many purposeful actions.

There is no disturbance on the receptive side of auditory speech nor on the emissive side and the path between the auditory and the motor speech regions is preserved. There is no perseveration. There is evidently some intelligence defect present. This is seen in the general dullness of the woman, her lack of interest in her personal care and a certain amount of emotional deterioration.

Clinically this group of symptoms resembles some of the descriptions of the transcortical motor aphasia, although the amount of voluntary speech that is preserved is more than in most of the cases described and the loss of reading and writing is more than usual.

The motor difficulty is of the nature of an apraxic disorder. The movement idea is always correctly formed and the auditory command is always understood. The difficulty is in the connections between the area where the auditory speech memories are deposited and the area where the movement idea is formed. It corresponds in this respect to Liepmann's ideokinetic apraxia.

To localize the disturbance is not altogether easy. The general intelligence disturbance and the marked memory impairment suggest a wide spread brain involvement and this is the process which has sometimes been found in the transcortical speech difficulties. The ataxia and agraphia are so marked as to almost make certain the localization of a disturbance in the region of the left angular gyrus. To account for the apraxia the lesion would have to involve the connecting fibers of the left auditory and the motor areas. Further than this it seems impossible to go at this time.

DISCUSSION.

DR. CARL D. CAMP: Dr. Barrett's case is interesting to me but the ground has been covered so fully from a neurologic point of view that I have nothing to add. It is only proper to remark that all of the cases on record show such great variations that for purposes of localization it is difficult to make use of these symptoms in any positive clinical way. It is naturally more or less of a guess what the lesion in each case is or where it is located.

BILATERAL INTERMITTENT SWELLINGS OF THE PAROTID GLANDS DUE TO INFECTION OF STENO'S DUCTS (SIALODOCHITIS).

ALBION WALTER HEWLETT, M.D.

Professor of Internal Medicine, University of Michigan.

(From the Clinic of Internal Medicine, University Hospital, Ann Arbor, Michigan.)

Mrs. M. G., age thirty, came to the Medical Service at the University Hospital on May 5, 1913, complaining of swellings on the sides of her face. The family history was unimportant. In the past she had had some stomach trouble with belching and heart-burn, some menstrual irregularity and for the past eight years a leucorrheal discharge.

The present illness began in January, 1911. While tasting food in the kitchen she experienced a pain in the left side of her face, which was followed by an acute swelling in the region of the left parotid gland. This swelling, which was tender on pressure and which interfered with opening the mouth, lasted about two and a half hours and then disappeared spontaneously, leaving the side of her face somewhat tender. For the following three months these swellings recurred almost daily on the left side but since then both sides of the face have been affected. They come especially in the morning immediately after takings on one side or the other have been almost attacks, the patient received a blow over the

swelling which caused it to disappear. The attacks have varied greatly in frequency but she has rarely passed a week or more without trouble and in the last nine months the swellings on one side or the other have been almost continuous. She has frequently been unable to eat on account of the pain. Her general health has become impaired and her weight has fallen from 128 to 101½ pounds.

The examination showed a poorly nourished young woman, quite pale and with bilateral tender swellings of the parotid glands, which prevented her from opening her mouth freely. Examination of the insides of the cheeks showed that the papillae upon which Steno's ducts emptied were considerably swollen, reddened and quite hard to the touch. Mucopurulent material could be obtained from the mouths of the ducts. Probing failed to discover any calculus or other foreign body and an X-ray of the cheek was negative. Upon several occasions it could be shown that pressure upon the parotid gland caused considerable fluid to come from the duct and that while the first few drops were mucopurulent, that which followed was clear mucus. Microscopic examination of the mucopurulent material showed numerous pus cells but no organisms.

It was therefore evident that we were dealing with a bilateral inflammation of the terminal portions of Steno's ducts, the symptoms of parotid swelling being due to obstruction of the excretory ducts by a swelling of the mucosa or by a plug of mucopurulent material. It is interesting that the early attacks occurred only on taking food, which naturally excited the gland to vigorous secretion. The tendency of attacks to occur after the first food taken in the day, is also interesting, because it seems probable that during the night the absence of salivary secretion allowed the ducts to be more effectively obstructed by the mucopus. The disappearance of the swellings on one occasion after a blow upon the side of the face, may also be interpreted as being due to a dislodgement of the mucous plug in the duct.

The treatment consisted first in daily instillations of a 10 per cent. argyrol solution into the ducts and second of frequent massage of the glands, so as to keep the ducts open. Under this treatment the condition rapidly improved. The trouble which had been practically continuous for eight or nine months became better, the parotid swellings disappeared, and the material obtained from the ducts lost its mucopurulent character. The general health of the patient also improved; the hemoglobin rose from 45 to 84 per cent. and the lost weight was recovered.

An operation for curettage of the uterus and repair of perineal lacerations was performed in Dr. Peterson's department on May 18.

The patient has reported a number of times at the Hospital for examination since her discharge on May 31. She states that she has had occasional slight attacks of parotid swelling with pain in this region but she has had no severe attacks since leaving the Hospital. Examination of the ducts on the occasions of her return have always shown an absence of acute inflammation. The swelling and redness of the papillae have not returned and the parotid secretion has remained clear.

DISCUSSION.

DR. D. M. COWIE: A very interesting disease for which this condition may sometimes be mistaken is that known as Mikulicz disease. This condition is characterized by painless bilateral enlargement of the parotid, sublingual, and orbital glands. It occurs in children as well as in adults. Some twelve or thirteen cases have been recorded in children. It is not associated with the symptoms of acute inflammation. There is a well known type of intermittent inflammatory parotitis. Dr. Hewlet's case is of interest from the viewpoint of retention resulting from apparent stenosis of the ducts and evidently does not resemble this latter type.

A CASE OF CHYLURIA.

HARRY B. SCHMIDT, M.D.

Instructor in Clinical Microscopy, University of Michigan. (From the Clinic of Internal Medicine, University Hospital, at Ann Arbor, Michigan.)

Mr. F. J., age fifty, American, married, entered the University Hospital on October 6, 1913, complaining of painful urination, constant dull pain in the bladder region, following which he passes milky urine.

History—His family history is unimportant. He has had the usual diseases of childhood, but never scarlet fever nor typhoid. He had pneumonia at 35 and gonorrhea at the same age. At the age of 42 he had sciatica. He denies having had syphilis. There was never any tuberculosis in the family and the patient has never been exposed to tuberculosis that he is aware of.

About a year ago the patient first noticed that his urine occasionally resembled milk. At this time for four or five weeks he complained of a dull pain in the bladder region with some difficulty in passing the urine in the morning. During the past year he has had fifteen or twenty similar attacks, coming on irregularly and at times apparently brought on by excessive exercise. The last attack began October 1, 1913. The urine at this time was slightly cloudy and on the following morning he had pain in the bladder region and passed a much cloudier urine than the previous night. This urine had the same milky color. The patient thinks that this attack may have been precipitated by splitting wood the day before.

The dull pain in the bladder region still exists but is not as bad as formerly. He has never had any chills, fever nor sweating in any of the attacks and the urine has never contained blood. The amount of urine passed during the attack is much smaller than normal and he has often observed clots which resemble milk curds. Occasionally they cause some difficulty in micturition. As these attacks usually begin after arising in the morning, he

thinks that posture may play an important part in their causation.

The patient seldom coughs, and has never had any night sweats nor fever in the afternoon. He complains of some slight shortness of breath on exertion, but has never had any edema of the extremities or of the genitals. His appetite is fair, and his bowels usually are regular. He has never been jaundiced nor had clay colored stools. He has lost about forty pounds, and has not regained this since the first attack. The patient's home is in Michigan, and he has never been out of the state except for seven months which he spent in Colorado and two visits to the state of California.

Physical Examination — Physical examination showed a well nourished muscular man of good color. There is no general glandular enlargement. The heart and lungs are negative. The edge of the liver is distinctly palpable but apparently not enlarged. The spleen is not palpable. There is no enlargements on percussion, and no elephantiasis. The gentals are normal. On examination, the eye grounds show arteriovenous compression, and there are myopic changes.

The Von Pirquet tuberculin test after forty-eight hours gives a slight reaction to 25 per cent., but is otherwise negative. Three milligrams of tuberculin given subcutaneously after thirty-six hours give a marked local reaction with no general nor focal reaction. The Wassermann is negative. Cystoscopic examination of the bladder is negative and the phthalein test from the catheterized ureters showed that the left kidney is excreting normally. No fluid was obtained from the right kidney because of kinking of the catheter on that side.

At the time the patient entered the Hospital his urine was negative. The patient was placed in bed and given an excess of fats without results. A few days before he left the Hospital, he had an attack of "milky urination." The specific gravity of this urine was 1009. It was negative to the Fehling's test. It would not clear on boiling nor upon the addition of acids. Microscopically the urine contained very small refractile granules. There were neither casts nor ova and no parasites seen in the sediment. The test for albumin was positive. Shaken up with twice its volume of ether, it lost its milky color, the resultant fluid being of a turbid grayish appearance.

On October 15, 1913, the urine was again perfectly clear and negative upon examination. His blood was examined carefully; on two occasions at night, about 10:00 P.M. and 1:00 A.M. No filaria were discovered. There were 5,000,000 red cells and 7,800 whites and a hemoglobin of 85 per cent. (Meischer) The systolic blood pressure was 125. Examination of the stools was negative. The temperature remained normal during the time the patient was in the Hospital.

Diagnosis—Since no definite etiologic factor could be found in this case, the diagnosis of idiopathic chyluria was made.

These idiopathic chylurias are relatively rare. It has been observed that they run an intermittent course, as do the chylurias of filarial disease. They are more or less noticeably affected by posture, many cases exhibiting a tendency to show chyle in the urine after arising in the morning. In thirty cases reported in the literature, in two instances a pelvic or inguinal abscess preceded the chyluria. Magnus Levy reported a case of chyluria with milky urine from the right ureter at night only when the patient lay in the recumbent position. Dr. Saxton Pope has reported a case of chyluria in a Japanese school boy who had had Pott's disease and psoas abscess in infancy. As shown by a cystoscopic examination, the chyle came from a sinus which opened in the region of the trigone. Ludke has ported a case of chyluria with inflammation of the bladder. Several cases have been reported, especially that of Charteris where the disease has been markedly influenced by posture and Hertz reports a case with obstruction above the diaphragm.

In conclusion, the chylurias due to filarial disease and also those of idiopathic origin, are conceded to be due to a rupture of the lympha ics, either of the bladder, kidneys or ureter. Very few of the nonparasitic chylurias have come to autopsy. Up to 1908 only four have come to autopsy in Germany. Of these but one, that of Hertz, was due to obstruction. It would seem, however, that in all probability in all of these cases there is an obstruction to the lymphatics in the bladder, kidneys or ureter. However, it is impossible to demonstrate this obstruction at autopsy or clinically in the majority of cases.

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DISCUSSION.

DR. JAMES H. AGNEW: This patient came complaining of some painful and difficult urination during these attacks. This was probably due to the small plugs or agglutinations of fatty material which form in the bladder in this condition. He had no symptoms whatever during his attack in the Hospital and neither were any of these plugs passed. One of the striking features of the urine was the perfect emulsification of the fat. A specimen after standing for a week or more showed no tendency towards the formation of a fat layer nor could the fat be separated by centrifuging.

DR. D. M. COWIE: It would be interesting to know the per cent. of fat in this patient's urine. This can be easily determined by the Babcock method which I have used a number of times, in the examination of chylous fluids. I believe we had a case of chyluria in the Medical Clinic a few years ago in a Chinaman. The man came to the clinic and was examined. His urine was found to be opalescent. He did not remain long enough, however, for complete examination and we were unable to follow up the case.

DR. CHARLES B. G. DE NANCREDE: I have seen at least two cases of chyluric ascites in the absence of all evidences of filariasis. On one I made an abdominal exploration which resulted in an apparent cure, but a chyluric pleuritis succeeded the abdominal condition. About forty years ago I saw a similar chyle-like fluid which had been removed by a colleague from the tunica vaginalis testis. Unless my memory deceives me, Doctor F. P. Henry reported a case of chyluria occuring in Philadelphia where

the filaria were detected in the blood, although the patient had not resided in any locality where filariasis had ever been reported.

Dr. A. W. Hewlett: The filarial type of chyluria is due to an obstruction of the lymphatic passages by the adult filarial worm. This causes a dilatation of the lymphatic channels with ruptures into the urinary passages. The mechanism which causes the non-filarial type of chyluria is not well understood. Of the few cases that have come to autopsy some have shown no definite disease of the lymphatic system, and in others the cause of the chyluria was not evident.

Dr. Schmidt (Closing): The patient brought this specimen to the Hospital. It was passed on October 1 this year and has stood in the laboratory ever since. You see that it is perfect emulsion, also that it has not separated into layers.

A CASE OF MOLLUSCUM CONTAGIOSUM OF THE EYELIDS.

Dennis V. Smith, A.B., M.D.

Assistant in Ophthalmology, University of Michigan.
(From the Ophthalmologic Clinic, University Hospital, Ann Arbor, Michigan.)

The patient, M. H., female, aged eight, came to the clinic about six weeks ago complaining of redness and swelling of the left eye. Ever since an attack of the measles her eyes had been red and weak, but four weeks previous to her coming to the Hospital, the condition became very much aggravated and small growths appeared along the lid borders.

History—The family and personal history were negative as regards the eye condition. The patient was well developed and with the exception of enlarged adenoids and tonsils was quite healthy.

Examination—Examination showed the vision to be 5/7.5 in both eyes. Pupillary reflexes were normal. In the right eye there was slight conjunctival injection, and in the slightly thickened upper lid there was a small nodule one millimeter from the lid order and five millimeters from the inner canthus. The skin over the nodule was slightly tense and glistening but was fairly movable. In the left eye both lids were thickened with narrowing of the palpebral aperture and slight mucopurulent discharge at the inner canthus. The palpebral conjunctiva was distinctly hyperemic with small discrete papular elevations causing a roughened and thickened appearance. The ocular conjunctiva was injected. The iris and cornea were apparently normal.

Along the roots of the cilia of the upper lid and external to the intermarginal line were two small nodules, one about three and the other about ten millimeters from the inner canthus. These were about one and one-half millimeters in diameter at the apex and about one millimeter high. The base was slightly broader and reddened, while the apex was finely granular, yellowish white and slightly umbilicated. About the middle of the lower lid border there was another nodule less elevated and broader than the two above.

Diagnosis—A diagnosis of molluscum contagiosum was made and confirmed by the Department of Dermatology.

Treatment—Upon incising the apices of the growths the contents were readily expressed as a finely granular whitish substance resembling sebum. The lesions were then treated with silver nitrate and soon healed over, leaving a slightly indurated area at the site of the growth.

While the case was under observation two small indurated areas appeared on the cornea, one at the limbus at 4, and the other one millimeter inside the limbus at 8. The larger one at 4 had a ring like border with central yellowish infiltration and a clearer zone between. Several other small whitish vesicles appeared near the limbus but they all responded readily to calomel and a pad, leaving a fine superficial vascularization of the cornea.

DISCUSSION.

Dr. Udo J. Wile: Molluscum contagiosum is more frequently seen in the skin than in the eye clinic, although the lesions do occur on the lid margin, being carried there undoubtedly by the fingers of the patient. The etiology of the disease is as yet unknown but it is highly probable that there is a filtrable virus. In an epidemic of molluscum contagiosum I endeavored unsuccessfully to inoculate my own skin with material expressed from a lesion and it seems not unlikely that infection occurs only where conditions are suitable in those perhaps predisposed. It is interesting to note that pigeons have a condition closely allied to molluscum contagiosum. A small epidemic of this disease occurred in Ann Arbor last year. I saw some six or eight cases at that time.

The JOURNAL
of the
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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Subscription Price—$2.00 per year, in advance.

DECEMBER.

Editorials

GREETINGS.

The Publication Committee and the Editor extend to our members and readers their hearty greetings and best wishes for a Merry Christmas and a Happy New Year. The season of holiday rejoicing and pleasures, we trust will bring to all a feeling of contentment and happiness. We sincerely hope and wish that the holiday season may cause you to experience nothing but unalloyed pleasure and joy.

THE PRE-CANCER STAGE.

An article in this issue by Dr. William Fuller, of Chicago, calls attention in a very forceful way to the necessity of the enforcement of prevention measures for the reduction of the number of cases and the number of deaths from cancer. Without going into any detail as to the statistics of the subject, let us recall that the number of cases of cancer calculated as being in the United States at this time, is approximately 225,000 and the number of deaths occurring annually about 75,000.

When a single disease reaches such proportions it is time for the medical profession to act. It has been argued that our knowledge of the subject is not sufficiently accurate and we have waited for the teachings of service to enlighten us. In the meantime steps must be taken looking towards the prevention of cases and deaths by having them cared for in the pre-cancer stage.

The curtailing of the ravages of tuberculosis is not so much the result of our exact knowledge of the specific cause of the disease as it is the result of a world wide campaign calling for the physical examination of the people in all stations of life from time to time for the purpose of the detection of early cases, patients, if you please, in the pre-tuberculous stage of the disease. Such cases we know yield to treatment and become for all practical purposes well and useful citizens. This is true of all diseases, but tuberculosis is here mentioned as a striking example.

All of this is clearly brought out in Dr. Fuller's paper and he appeals to the medical profession "who first see cancer patients and pre-cancer lesions and in whose power rests the possibility if such exists, of cancer cure." So far so good, but let us make a rousing campaign so that the people will seek out these physicians earlier. It is time that more public meetings were held in which the comparatively small lesions which often result in cancer are pointed out to the laity so that they may be on their guard. Dr. Fuller says, "The more early the indications for surgery are recognized, the less extensive and mutilating will the surgery be." His words of truth are well chosen and are a timely admonition to the medical profession—but, in addition, the more the people are told plainly and boldly about the truth of these conditions, the earlier will they consult physicians about "an innocent little growth of but few days' or weeks' standing, situated on the tongue, lip or elsewhere" because they themselves will consider it a serious matter. The result of all of this education among laity and profession alike, will be the beneficial result for which the author makes his plea.

This is the day of preventive medicine and the march of that science is pushed onward by the demand of the public. Societies for the prevention of tuberculosis, for the prevention of infant mortality, for the prevention of venereal diseases and for other preventive purposes have done and are doing good work and not the least good accomplished by them is the fact that they have in many instances forced the physicians in the respective localities in which they are active, to be prepared to answer some of their demands. Doctors who are able to make an early diagnosis of tubercu-

losis and who are willing to tell their patients about it are more numerous now than formerly. Why would not the same result follow in the case of cancer if the physicians explain to their patients the absolute necessity of being properly cared for in the pre-cancer stage?

Dr. Fuller's remarks are timely, to the point, and worthy of every physician's attention, because, as he says: "One physicion, or a small per cent. of the physicians of a community, who are qualified, both by nature and education to rightly present a case of this kind to their patient are not sufficient to lower mortality in that community."

Let the physicians of Michigan take heed and let us make this state a community in which every physician is qualified for this great work.

Guy L. Kiefer.

MEMBERSHIP CAMPAIGN.

A membership campaign is now being carried on in the endeavor to increase our membership so that our State Society will consist of a majority of the eligible and reputable physicians in Michigan. There are some 4,100 physicians in Michigan: 2,148 of that number are members in good standing in our state organization. It is estimated that there are 1,000 physicians who are not members but who are eligible and who should be members. To demonstrate to these men why they should become affiliated with their county and state society and participate in its benefits and activities is the object of this present campaign.

Experienced canvassers, trained men who have conducted similar campaigns during the past year under the auspices of other state societies, are now in the field. They will cover as much of the state as possible during the remainder of the year and will complete the work in the outlying districts as soon as the weather ameliorates in the spring.

The plan under which these canvassers work is as follows: A list of names of eligible doctors is obtained from the officers of the county societies. These men are then called upon by these canvassers and to them is explained the value of a county society to a doctor and to its community; they will advance arguments as to why he should become a member and demonstrate to him the personal value that such membership will be to him. The doctor will then be asked to make out his application for membership. The application will then take its usual course of being handed to the secretary and voted upon by the society.

We feel that there are a number of doctors who are not members of their county society simply because they have never had the matter fully explained to them or have never been invited. We are in hopes that this educational campaign will result in clearing up any misunderstandings such men may have and that they will then be eager and glad to become affiliated with organization work in their county.

Mere numbers is not what we are striving to attain. Our value, our influence and the good that organized efforts may accomplish depends upon more than numerical strength. With the advent of increased membership there should be brought about renewed and increased society activity. How and in what direction this activity may be best exerted can only be determined by each county society. Every county has its own problems and is therefore best fitted to judge as to how their society may become of better value and greater benefit to its individual members.

At this time we but ask that each member extend the glad hand of welcome and fellowship to the new member and thus cause him to feel that he has become a part of an organization that is engaged in actively advancing their material as well as intellectual interests and thus collectively exert their influence for the betterment of the public and the state.

INCOME TAX APPLIED TO PHYSICIANS.

The amount of discussion in the newspapers and elsewhere has made those interested familiar with the general provisions of the income tax. Its application to physicians, however, involves some difficult problems, the working out of which will have no small effect on the economic side of the practice of medicine. The general provisions of the law are well understood.

The first and most important question which will be raised by the application of this law to physicians is, What is a physician's income? In the case of physicians or surgeons employed on a salary by life-insurance companies, railways and other industrial organizations, the question is as easily determined as in that of any other class of salaried employees. The great bulk of physicians, however, have an income made up of fees received from patients for services rendered, the sums being large in number and relatively small in amount.

It has been customary for a physician to regard his gross receipts for the year as his income. The inaccuracy of such a supposition, and the injustice of taxing a physician on his gross receipts, is self-evident. Out of the entire amount of money received during the year, the physician or surgeon has to pay the expenses of his business. His gross receipts no more constitute his income than the gross re-

ceipts of a dry goods store constitutes the income of the proprietor. Out of his gross receipts a physician has to pay for his office, telephone, office girl, stenographer, instruments, books, professional journals, drugs, dressings, and all the material needed for his work, as well as for the maintenance of horses, carriages, automobiles or other means of conveyance. Clearly, a physician's income is the difference between his gross receipts and the cost of operating his business, or the amount that he has left for himself and his family after paying all his necessary professional expenses.

In the case of surgeons in large cities or specialists doing an exclusive office practice, it will be comparatively easy to separate the necessary business expenses from personal expenses. It will be necessary only to keep a separate account of all expenses connected with one's office, and to deduct this amount from the gross receipts. It is doubtful, however, whether even these elementary bookkeeping methods are being followed by the majority of physicians under such conditions. A careful inquiry would probably reveal the fact that many of our most successful specialists and surgeons would be unable to tell, offhand, how much it costs them to carry on the business side of their work during the year. Such a separation of business and personal expenses will become necessary under the law in order to determine the real income of such physician.

The law provides for the deduction of "necessary expenses for carrying on any business." Obviously the difficulty will lie in determining what these necessary expenses are. When the case of the average general practitioner in the small city, town or country district is considered, however, the difficulties multiply. In many cases the only form of bookkeeping followed by physicians has been a personal running account with each patient or family. Services have been charged against the patient and payments have been credited. No attempt has been made to balance the books annually, to charge off bad accounts, to estimate the value of standing accounts, or to arrive at any definite figures as to the cost of doing business. Outside of the larger cities the majority of physicans have their offices in their homes. No attempt is made to separate office rent or office expenses from general living expenses. Heat, light, telephone and other necessities for professional work are also utilized for personal and family purposes. Drugs, dressings and other supplies are often purchased at the local drug store, where a running account is carried, and where many articles for family use are purchased at the same time. Medical books are purchased and journals subscribed for, without any thought of the cost being a professional, and not a personal expense. Membership in medical societies is not recognized as anything but a personal relation, although in many cases it carries with it subscriptions to medical journals and is maintained for purely professional reasons. Horses, carriages or automobiles are used indiscriminately by the doctor for professional purposes and by himself or his family for social purposes and recreation. It is probably safe to say that the plan followed by the majority of physicians in the United States is to collect as large a percentage of their bills as possible, pay out of their available funds their professional and personal expenses and the expenses of their families without any effort at discrimination, and to regard any surplus which may remain as profit for investment or increased expenditures.

In the case of unmarried physicians whose gross receipts for the year amount to less than $3,000, or married physicians whose gross receipts are less than $4,000 there will, of course, be no difficulty. They will clearly come under the exemption clause. The limited number of physicians practicing surgery or any exclusive office specialty in large cities, who have systematized their work on a business basis, will also offer no difficulty. They can readily show the amount of their operating expenses and the balance remaining which will be subject to the income tax. The difficulty will arise in the case of the large number of physicians who have hitherto paid no attention to the details of expenses, and who will be incapable, without a marked change in their business methods, of separating their business and professional from their personal expenses. When this is attempted, some interesting questions will arise. For instance, should the entire cost of operating an automobile be regarded as a professional expense? It is probably true that the majority of physicans would not run an automobile were one not absolutely indispensable for present-day professional work. On the other hand, the machine is used, not only for work, but also for recreation by the physician and members of his family. How would it be possible to apportion the amount of time during the year spent in using an automobile for business and that spent in using it for pleasure?

In the same way difficulty will arise regarding office help and assistance. A physician having his office in his home has attendants who are partly professional and partly personal. A maid, for instance, who acts as attendant in the waiting-room during the doctor's office hours may be employed with domestic duties at other times. The telephone is certainly a professional necessity, and yet it is constantly used for personal and social purposes. The physician is different from any other professional man in that, in the majority of cases, his home is his place of business. The

teacher has all of his equipment furnished him. The lawyer, even in small towns, hardly ever has his office in his house. The minister has little, if any, professional expenses. The business man has his place of business entirely separate, and the bookkeeping system which has been forced on him makes it easy for him to separate his business expenses from those of his home. But the physician has, for generations, carried on his work in his home. His professional and personal expenses have never before been separated.

In addition to determining what their incomes are, physicians will learn for the first time, owing to the necessity of more carefully kept accounts, what are the rewards of the practice of medicine. The ratio between expenses and profits in the practice of medicne will be learned. If it should be shown, for instance, that even in the case of a physician collecting a gross income of $10,000 a year, the net proceeds to the physician after all his expenses were paid was only $5,000, it would be evident that $5,000 and not $10,000 was his income and that in order to have $1 to spend he would have to earn $2. If it should appear that the physician collecting $4,000 a year in the small town had more money to show for his work at the end of the year than the physician in the large city collecting twice that amount, but paying out more than twice as much in expenses, then as a business proposition the advantages of country over city practice would be demonstrated. Many equally interesting and important deductions can be thought of.

The most important result of the application of this law to the medical profession, however, will be the necessity on the part of physicians of more accurate methods of bookkeeping, and more carefully kept accounts. It has often been observed that one of the most effective ways to make a man economical and thrifty is to require him to keep an accurate account of all the money which he pays out and the purposes for which it is paid. The majority of physicians today probably have no idea of the amount of their gross annual expenses, probably many do not even know their gross annual receipts. If compelled to keep an accurate record of all receipts and expenditures, and to draw up a balance sheet each year, the result would inevitably be greater economy in their business methods, more careful attention to business details, and, in the end, probably greater thrift and larger bank accounts. In the meantime, however, through the enforcement of the Underwood law, physicians may obtain some exceedingly interesting information regarding the economics of the medical profession, and their own financial standing.

—*Jour. Am. Med. Assn.*

Editorial Comments

When the form and style of the Journal was changed last spring the time at our disposal was very short and some details connected with the making of the change were necessarily somewhat hurried. The selection of the style of our first page and other title pages has never been satisfactory to us for we admit its lack of tone and style. It was the best of several drawings submitted to us by the engraver and the lack of time prevented our securing a more suitable heading. With the commencement of a new volume in the January number we hope to be able to present our Journal to our members with a title page that is all that it should be and in itself will add to the value of The Journal.

This number contains the index for the year. We have endeavored to be very careful in its preparation and have taken pains to minimize the number of errors. We trust that our members have acquired the habit of binding each volume and preserving it for future reference and use. In this connection we wish to call your attention to a substantial binder in which you can file your Journal as you receive it each month and thus preserve it intact. Such a binder will be supplied to you upon the remittance of one dollar.

Every committee that is appointed by a county society has its duties prescribed for it. The acceptance of an appointment upon a committee implies that you will actively assist in the performance of the duties of that committee. Live working committees will accomplish the ends and objects of our organization. Dead, inactive committees mean inactive societies. If you are a committee member will you not help boost and faithfully perform the task assigned? There are plenty of men sitting in the galleries. What is needed are more men in the arena. Will you not join those who are working in the arena to cause our society to become a potent power for good to the doctor as well as to the public at large? Help make your committee more than one of name.

If you smile someone else will be caused to smile and soon there will be miles and miles of smiles. Forget your grouch and exercise your *risor sardonicus* a little more frequently. It will aid you wonderfully. Try it.

Personals and news items are solicited. We desire to have our News Department accurately chronicle the professional news of the state and to this end we earnestly solicit every member

to send us clippings and items from their local papers that will be of interest to the entire profession of the state.

Your county officers devote considerable time in the preparing of the programs for your meetings. It would be but mere courtesy—let alone duty—for you to express your appreciation of their work by making it a point to attend every meeting. Get out of your old rut—mingle with your fellow practitioners and so become a better and more capable doctor by reason of your attending your local meetings regularly and taking some part in each program or discussion. To obtain the full benefits of your membership it is necessary that you attend each meeting.

January first is recognized in the business world as the day for the commencement of taking invoice of one's business and the footing up of the profit and loss columns in the ledger and striking a gain or loss balance. It might be a wise plan if the doctors did likewise. The devoting of a few hours for a few days to accurately ascertain the condition of one's finances and business is time well invested.

We are opposed to permitting a spirit of commercialism to enter the ranks of our profession and to reckon everything in dollars and cents. We do, however, believe that a physician may well adopt some method of business and strictly adhere to that system without being designated as being commercial. Your time and your skill are the commodities you have to offer the public and it is but just and proper that those who purchase from you and are financially able should pay you in the time customarily allowed to accounts in the business world. When you buy anything you either pay cash or are granted credit for thirty or sixty days, at the end of which time you are expected to come across with a check. There is no reason why a doctor should not adopt a similar rule. Of course there will be instances where the enforcement of such a rule would create a hardship. Upon the other hand others neglect paying because the doctor has no fixed rule governing the collection of his accounts. We are urging that with the commencement of a new year that you adopt some system for rendering your bills and then live up to it and grant extension of credit only in worthy instances. By so doing you will be able to discount your personal bills and cease paying interest upon borrowed money.

We desire to acknowledge the co-operation and assistance rendered us by our members and readers by means of their patronizing our advertisers. It has enabled us to send you a larger and, we believe, better JOURNAL. We bespeak the continuation of this support from you during this coming year. Those who have neglected giving us this assistance are again asked to co-operate with us and place their business with our advertisers in preference to other business houses. Acquire the habit of perusing our advertising pages and then purchase your necessities from the firms who are patronizing YOUR JOURNAL. By so doing you will receive additional returns for your money for you will thus enable your Publication Committee to secure a larger number of advertisers and thus send you a larger Journal. We accept only honest advertisements. Tell them, when ordering, that you saw their "ad" in THE JOURNAL. Let's all pull together.

The following comment upon the use of the curette is so to the point that we are disposed to place it before our readers. It is uttered by Dr. J. B. Murphy and is taken from his "Clinics" published by W. B. Saunders & Co.:

"In the consideration of curettement as a general proposition *no one should ever use a sharp curette.* Always use a dull curette—one with a flexible handle. A spoon that is stiff enough and sharp enough to take off the mucosa with its glands leaves nothing in the uterus when repair is complete but a mass of connective tissue which heals by cicatrix formation without being covered with epithelial cells. If, on the other hand, you use a dull curette and scrape off the surface only, the edematous mucosa, you leave the glands beneath, which furnish new epithelial cells to cover the abraded or denuded surfaces and make it possible for normal mucosa to result. If you were to examine that uterus four weeks later, you would not know that it had ever been curetted, while if you were to examine the uterus in the other cases where a sharp curette was used, you would find a solid cicatricial mass, and no epithelial cells of the normal uterine type covering it. What happens to one of these young women who are curetted with a sharp curette? She is curetted usually because she has a menorrhagia or painful menstruation because of the contraction of the internal or external os. She always is curetted, whether she needs it or not. If you curette with a dull, flexible-handled spoon, you cannot possibly destroy the mucosa. You can scrape the mucosa until you are "black in the face" and you will not dig it out. If, on the other hand, you use that new sharp curette that has been on the market for the last few years, you take out all the mucosa and leave nothing but a muscular and connective tissue lining. What happens to these young women? They are rendered sterile; they are rendered invalids because they do not have their normal menstruation. The menstrual period is cut down

to a day, or half a day, and then they commence to have all those neurosis that are associated with a premature menopause. A curettement should be done just the same as if one was curetting the conjunctiva of the eye.

"At home! That is the point I have been making for the past seven years about the curette, namely, that the careless doctor carries his tooth-brush and curette in the same pocket and uses them both with about the same frequency. He pulls the patient over to the side of the bed, and with a sharp curette scrapes away to his heart's content. That is the way the curette has been used by many men for a long time. We do not do anything like that upon the surface we can see; why do we curette the uterus with a sharp instrument just because it is hidden and we cannot see the mischief that is being done?"

Further comment is unnecessary. There is sufficient food for thought in the above.

State News Notes

Dr. Walter J. Bion, formerly of Homer is now located in Union City.

Dr. F. M. Ingenfritz has been elected as county physician for Kalamazoo county.

Dr. S. N. Insley of Grayling sustained a fractured wrist while cranking his automobile.

Dr. Jacob Rosenthal of Petoskey has moved to Detroit and entered practice in that city.

Dr. John H. Slevin of Detroit has been appointed as pension examiner for the pension department in Detroit.

Dr. Harry L. Sibley has again been re-appointed as medical examiner of the public schools of Pontiac.

Dr. J. E. Dolson of Mackinaw has moved to Petoskey and has entered into general practice in that city.

Dr. J. Milton Robb of Detroit has returned from a four-months post-graduate work in some of the eye and ear hospitals of Europe.

The State Board of Registration in Medicine has revoked the licenses of Drs. James D. and Charles J. Kennedy of "Dr. K. & K." fame.

Donald McMullen, son of Dr. B. H. McMullen of Cadillac, and Miss Helen C. Diggins of Cadillac were married at the home of the bride's parents on Nov. 5th.

The Board of Education of St. Joseph has instituted a system of medical school inspection. Dr. Sherman Gregg has been named as school physician for the coming year.

Dr. John Dodds of Detroit announces that he will limit his practice to Diseases of the Genito-Urinary Tract and Cystoscopy. His offices are located in the Fine Arts Building.

Dr. A. H. Rockwell, health officer of Kalamazoo, has given permission to all practicing physicians of Kalamazoo to use the new laboratory for making microscopial or cultural examinations.

Dr. Elsie Pratt of Ann Arbor, recently appointed as physician to the women students of the University, was the guest of honor at a luncheon given by the Association of University of Michigan Women in Detroit on Nov. 1st.

Dr. R. B. Taber, physician for the fourth division State Naval Reserves, and a member of the state naval militia, left Benton Harbor on Oct. 24th, to join the Atlantic fleet as a member of its medical staff on a cruise to foreign ports.

Dr. Adolph Schmidt, professor in the University of Halle, Germany, was the guest at a luncheon tendered to him by Dr. C. D. Arons of Detroit. Dr. Schmidt later in the evening addressed the members of the Wayne County Medical Society.

A "Welcome to Detroit Luncheon," was given on Oct. 22d, to Dr. Harry W. Plaggemeyer, formerly of the staff of the Johns Hopkins Hospital. Dr. Plaggemeyer will assume charge of the urological department of the Detroit General Hospital.

By unanimous decision of the Board of Education sex hygiene will be taught in the public schools of Kalamazoo by means of lectures and lantern slide illustrations. The lecturers have as yet not been selected.

Dr. R. L. Dixon, secretary of the State Board of Health, has tendered his resignation to the Board and will accept the position of superintendent of the epileptic colony in Tuscola county. The change will be made as soon as his successor is elected by the Board.

A photogravure enlargement of the "Injured Finger," which we published in the November number may be secured from the Surgery Publishing Company, 92 William St., New York City, at a price of fifty cents. This photograph has aroused an interest among a number of our readers and we have received several requests asking where copies for framing may be secured.

The Chicago Daily Tribune has launched a campaign against the medical quacks and fakers of that city. It is exposing in no mistakable terms the methods of these charlatans and demonstrates how people are swindled out of their money. The work of the Tribune is commendable to say the least. Its example might well be emulated by several of our leading Michigan newspapers.

Under the direction of Dr. Guy L. Connor, medical examiner for exceptional children in the public schools of Detroit, all the children in the schools are being subjected to a systematic examination. Those who are found deficient mentally or physically are sent to "exceptional children" rooms and receive special attention. The work is being done by the Board of Health with the co-operation of the Board of Education.

Dr. G. S. Kennedy of Detroit, while driving his car on the evening of Nov. 8th, was blinded by the headlights of another car and drove his car into one of the iron posts supporting the Michigan Central tracks. The doctor was thrown from his machine and rendered unconscious. At first it was thought that he had sustained a fracture of the

skull but subsequent examination eliminated this injury and the doctor is now reported as recovering.

According to the report made to the County Board of Supervisors by Dr. Chas. N. Bottum, medical director of the Morgan Heights sanitarium in Marquette, fifty cases of tuberculosis were admitted to the institution during the past year. Five cases were discharged cured; three cases discharged greatly improved; twenty cases left of their own accord; thirteen deaths occurred all in advanced cases; and fourteen remain for treatment. Additional room which is being provided by the erection of a cottage will give the sanitarium facilities for caring for twenty-five patients.

The Seventh Annual Meeting of the Michigan State Association for the Prevention and Relief of Tuberculosis was held in Kalamazoo on Nov. 6 and 7. Addresses were delivered by Gov. Ferris, O. W. McMichael of Chicago, Dr. V. C. Vaughan, Sr., and Dr. Warthin of Ann Arbor.

The association re-elected Dr .Herman Ostrander of Kalamazoo president; the board of directors is composed of: Mrs. Elnora Chamberlain, Hartford; Mrs. L. D. Burritt, Cadillac; Dr. Collins H. Johnston, Grand Rapids; Mrs. Clara B. Arthur, Detroit; Dr. R. L. Dixon, Lansing; Mrs. Lucina H. Rudell, Sault Ste. Marie.

The Clinical Congress of Surgeons of North America that was held in Chicago during the fore part of November was probably one of the largest attended sessions since the organization of the Congress. Between four and five thousand surgeons were registered. The accommodations for witnessing the various clinics that were held were overtaxed and many were prevented from attending some of the scheduled work. It was a difficult task to secure the special admittance tickets.

The next session will be held in London, England. It remains to be seen whether the designation of a foreign city as a meeting place will or will not be a wise move. We feel assured however, that the officers of the Congress will endeavor to maintain the high standard that has been set and will develop plans such as will greatly increase the value and benefits that can be derived from this organization. Michigan was well represented at the Chicago meeting.

County Society News

DETROIT OTO-LARYNGOLOGICAL SOCIETY.

Oct. 21, 1913. In the chair Dr. P. J. Livingstone.

Dr. Thomas Hubbard of Toledo, Ohio, as guest, addressed the Society on Bronchoscopy and oesophagoscopy as applied in removal of neoplasms, foreign bodies and treatment of stricture, and illustrated his address by lantern slides.

Dr. Hubbard reported cases of foreign bodies in lungs and oesophagus; cases of papilloma of larynx in adults and children, tracheotomy, granuloma in trachea and subglottic granuloma following pharyngo-laryngeal phlegmon; also, oesophageal stricture in children dilated by aid of oesophagoscope.

Discussion: Dr. Canfield spoke of the importance of the suspension apparatus in children and among other cases of a patient who carried four teeth and the plate for sixteen years in the oesophagus. The patient did not eat solid food for sixteen years and acquired a gastroptosis. During the efforts of removal the foreign body slipped into the stomach. The patient was doing fine and is satisfied.

Dr. Hickey presented several X-Ray pictures and foreign bodies. The photographs are in reduced size and the foreign body is attached to the photograph, on the side, thus giving a complete exhibit of picture and foreign body. Of special interest was a piece of lead-pencil with rubber attachment which was removed by the aid of the bronchoscope, the leaded point of the pencil was in the bronchus.

Dr. Miner spoke of the value of the suspension method and is of the opinion that the direct method will supersede the older methods.

Dr. B. R. Shurly had fifteen to twenty cases of papillomata in children. Tracheotomy stands out as important feature. Of special interest was a patient with obnoxious odor of rubber. Cough dated from visit to dentist. Trials disclosed the rubber piece which was coughed up one-half hour later.

Dr. Slack spoke of a patient from whose larynx he removed two pieces of papilloma. Another surgeon declared the growth to be on a carcinomatous base and advised laryngectomy. Patient, however, is so far doing well without further interference.

Dr. Hubbard closed the discussion.

Emil Amberg, Secretary.

GRATIOT COUNTY.

The Annual Meeting of the Gratiot County Medical Society will be held in the Wright House, Alma, on Thursday, Dec. 11, 1913 at which time the following program will be carried out:

Reading of Minutes of last meeting.

Report of the Secretary.

Discussion of the Secretary's report.

Address of the retiring President, Dr. W. E. Barstow.

Election of officers for the ensuing year.

Address by Dr. Reuben Peterson of Ann Arbor: "The Significance of Irregular Flowing in Women."

In the evening Dr. Peterson will give a public address in the Alma High School Auditorium on "The Rights of the Unborn Child."

A goodly attendance at both of these meetings is urged.

E. M. Highfield, Secretary.

GRAND TRAVERSE-LEELANAU COUNTY.

The physicians of the Grand Traverse region and their wives were guests at the reception given to mark the opening of the Grand Traverse Hospital, under the management of Mr. and Mrs. A. S. Smith.

Early in the evening the Medical Society held its annual election of officers with the following result:

President—Dr. G. W. Fralick, Maple City.

Vice-President—Dr. Sara T. Chase, Traverse City.

Secretary-Treas—Dr. James A. J. Hall, Traverse City.

Medico-Legal Representative—Dr. J. B. Martin, Traverse City.

Papers were presented by Drs. E. B. Minor and Fleming Carrow.

James A. J. Hall, M.D., Secretary.

HOUGHTON COUNTY.

The regular monthly meeting of the Houghton County Medical Society was held Monday evening, Nov. 3, 1913, at the Miscowaubick Club, Calumet. The meeting was one of the largest attended meetings the society ever had and the interest shown was appreciated by all.

The first paper was by Dr. Simon Levin of Lake Linden on "Cancer with a Plea for an Early Diagnosis." It was a good practical paper that showed the appaling increase of cancer with statistics down to Houghton county. The necessity of instructive measures for both laymen and physicians was strongly urged. The paper will appear in the January JOURNAL.

The second paper was by Dr. Alfred LaBine of Houghton on the report of an autopsy. The case was one of a giant, eight feet, one inch in height. The man's death was caused by leptomeningitis, but the pathology in possible organs causing the giantism was the subject of primary investigatons. So far the only point leading to this interesting condition is the thymus gland weighing six ounces whereas normally it weighs from ten to twenty grammes. Pathological sections of the thymus shows numerous cysts filled with cholestrin and lime salts but no histological structures sufficient to identify their origin. More work is being done on the pathology by Dr. A. S. Warthin of Ann Arbor.

The third paper was by Dr. F. L. Pierce of Hancock on "Ophthalmia Neonaterum." The subject was very appropriate considering the recent legislative action on the prevention of this disease. The doctor laid stress on the general practitioner's negligence. He laid special emphasis on the prophylaxis and treatment and those that were present felt that the new state law will be the means of preventing a great deal of the blindness that results from this disease.

The meeting adjourned to the luncheon room.

ALFRED LABINE, SECRETARY.

GENESEE COUNTY.

The Annual Meeting of the Genesee County Medical Society was held in the Masonic Temple in Flint on Oct. 28th, at 3:00 o'clock. The following is the secretary's annual report:

"Since the last annual meeting, Genesee County has lost by death, one honorary member—Dr. R. N. Murray—and one active member—Dr. Abraham Goodfellow—who was also a director at the time of his death. Three active members have removed from the county. Two members failed to qualify by neglecting to pay their dues. Six new members have been received during the year.

The present status of physicians and surgeons in Genesee County shows that there are 99 physicians in the county of whom 77 are members. The 19 doctors who are non-members I have classified as eligible, non-eligible, old or inactive. There are thirteen doctors who are eligible to membership. Of these, five have applied for membership at this meeting and two are reinstated. Discarding the non-eligible doctors in the county, Genesee County Medical Society can boast of a membership composed of 85.5 per cent. of the physicians in the county. This percentage will be increased by the in-coming members to 93.3 per cent.

The Genesee County Medical Society has held during the year four regular quarterly meetings; four monthly meetings, and one special meeting. Five foreign speakers have addressed the meetings. Eleven papers have been read, two illustrated by lantern views, and one clinic held. The average attendance has been thirty-two.

Socially we have had two banquets and one picnic lunch and two entertainments at member's homes. Two ball games have been played for the benefit of the Flint Maternity Hospital and Infants Home. The proceeds of these two games was $133.90. These pastimes are mentioned because the doctors were both times victorious over their opponents, the druggists and bankers.

The annual report of the treasurer is as follows:

RECEIPTS.

Annual dues and subscriptions to the State Journal from 72 members @ $4.00 each	$288.00
Six months' dues and subscriptions from 3 new members @ $2.00 each	6.00
Annual dues only from one member	3.00
Lapsed dues of year 1912	4.00
Cash balance from banquet committee	1.00
Cash from voluntary contributions for flowers	31.00
Cash balance on hand at the beginning of the year	36.38
Total	$369.38

DISBURSEMENTS.

To M. S. M. S. for annual dues and subscriptions to the State Journal	$224.50
To rent of meeting hall	23.00
To printing	27.60
To flowers	44.95
To stationery	12.00
To telephones and telegrams	4.19
To stamps	4.50
Total	$340.74
Receipts	$369.38
Disbursements	340.74
Cash balance on hand	$ 28.64

FREDERICK B. MINER, TREASURER.

The Committee appointed to investigate the county registration of drugless healers and Chiropractors recommended:

That the Society incorporate as a body and if there have to be any prosecutions made that some able attorney be employed to act as an assistant to the prosecutor and that the whole matter be referred to the Board of Directors with power to act.

The following doctors were elected to membership: P. M. Crawford, S. H. Bahlman, R. G. McGarry, R. G. James, D. C. Smith.

The following officers were unanimously elected for the ensuing year:

President—M. S. Knapp.
Vice-President—C. H. O'Niel.
Secretary—R. D. Scott.
Treasurer—F. B. Miner.
Director—Noah Bates.
Delegates—W. G. Bird and H. A. Stewart.
Alternates—H. Cook and H. D. Knapp.
Legal Representative—H. R. Miles.

The following program was carried out:

"The Treatment of Severe Forms of Diabetes," by Dr. H. A. Freund, of Detroit.

"Diphtheria." Dr. Guy L. Kiefer of Detroit.

On motion Drs. Kiefer and Freund were extended a vote of thanks and elected to honorary membership.

At eight o'clock the Annual Banquet was held at the Hotel Bryant. The guest of honor was Dr. Guy L. Kiefer, President of the State Society. The following toasts were responded to:

Toastmaster, J. G. R. Manwaring.

"The Doctor as a Social Factor," Rev. Father Comerford.

"How to Make a State Medical Meeting a Success." H. E. Randall.

"From the Patient's View Point." H. D. Knapp.

"What We Saw in Europe." H. A. Stewart, J. C. McGregor, D. Jickling.

"What Europe Saw of Them." T. S. Conover.

C. P. CLARK, SECRETARY.

KALAMAZOO ACADEMY.

Program Tuesday, Nov. 11, 1:30 P.M.:

"Diagnosis of Tuberculosis with Demonstration of Methods." Dr. B. A. Shepard, Kalamazoo, Mich. Discussion by Dr. Walter den Bleyker, Kalamazoo. Dr. J. B. Jackson, Kalamazoo.

"Chronic Intestinal Stasis"—A Stereopticon Clinic. Dr. Wm. Seaman Bainbridge, New York. Discussion open by Dr. J. B. Whinery, Grand Rapids, Mich.

Tuesday, Oct. 28, 1:30 P.M.:

"Some Recent Observations on Smallpox Cases," Dr. R. P. Stark, Allegan, Mich. Discussion by Dr. O. B. Ranney, Kalamazoo and Dr. W. C. Huyser, Kalamazoo.

"Human Blood Serum Therapy." Dr. H. H. Cummings, Ann Arbor, Mich. Discussion by Dr. A. W. Crane, Kalamazoo and W. A. Perkins, Kalamazoo.

"Exophthalmic Goiter." Dr. Carl B. Davis, Chicago, Ill. Discussion by Dr. A. S. Youngs, Kalamazoo and Dr. O. H. Clark, Kalamazoo.

The bi-monthly meeting of the Academy was held October 28th with Dr. C. E. Boys in the chair. The minutes of the last meeting were read and approved. All the members of the Board of Censors being absent, Dr. Henwood's application was laid on the table. The report of the budget committee which was laid on the table at the previous meeting was taken up and discussed. Dr. Blanche Epler thought more money should be voted to the library fund; that the $15 to the Improvement League was money well spent; that the amount of $40 was exorbitant for the telephone since we only used it twice a month.

There is considerable difference in opinions as to the value of the library. This depends upon the individual. The doctors today as a class are supporting several wealthy medical publishing houses, because there are several men in the community buying the same books. If the medical men would but support collectively one fund each man could save from $20 to $25 per annum upon books. At any time the literary productions of any one well-known author were desired by one or more individuals, this library fund would be available for the purchase. These books would be accessible to all. What applies to text books also applies to our leading journals. The secretary believes that the society is neglecting a great opportunity in not building up a library and using it, and that $75 should be a minimum amount for the society to devote to its library. This should be increased from time to time as the society prospers.

The secretary explained that heretofore the telephone had cost $18 per year but that recently the manager had raised the rate to $40 the same as for any other corporation. The fact that we only use the phone twice a month did not seem to alter his decision. Dr. W. S. Tompkinson suggested that a pay phone be put in, but this was objected to by the Anti-Tuberculosis Society. To limit our telephone bill this telephone can be put under the name of the Anti-Tuberculosis Society. This being a charitable organization, primarily, some rebate would be given.

The custom of the society for some years past has been to make an annual subscription of $15 to the Kalamazoo Improvement League. This pays for one week's salary of the nurse. The prevailng opinion is that this should be paid.

Previously there has always been a great deal of discussion about the dues to the State Medical Society, which are $3 per annum per member, $2 for THE JOURNAL and to maintain a state medical organization, the other $1 for medical defense. Some of the members have expressed themselves as feeling that THE JOURNAL is not worth $2; others have expressed themselves as feeling that THE JOURNAL was only a part of the value received, but the greatest value received was from the State Medical Society as an organization within itself.

Some think $35 per annum for cleaning is an exorbitant fee. During this last year the Academy has really been clean. The central location, the ease with which dust and dirt accumulates, for common decency sake it is necessary to have the Academy swept and dusted just before the meeting.

Ninety dollars for postage and stationery includes postage for correspondence and mailing of the bulletins. The county medical societies and the special societies all over the state know of our work, our aim, and the standard that we maintain through the Bulletin only. The secretary of every Medical Society in the state receives a Bulletin. Lately we have been mailing them only when we have an especially good program. We believe this money well spent and should not in the least be curtailed.

As far as the Bulletin is concerned it has become indispensable for the following reasons: (1) It notifies every member of the day of meeting and the program—it is a reminder. (2) It keeps the absent member posted. (3) It is the tie that binds. (4) It stimulates interest and increases the attendance of our society at the meetings. (5) Public interest in local medical affairs is greatly enhanced through the mailing of the Bulletin to people interested in medical and semi-medical questions. The effect upon public medical legislation can never be estimated.

SALIENT POINTS BY DR. HOWARD H. CUMMINGS, OF ANN ARBOR, IN A PAPER UPON "HUMAN BLOOD SERUM THERAPY."

Summarizing all the theories we must explain the action of blood serum in one of the following ways: (1) The introduction of blood serum supplies one or more of the substances to produce coagulation. (2) Blood serum stimulates the blood-forming organs to supply the substance which is lacking and causing the bleeding. (3) Blood serum neutralizes anti-thrombin or toxic substance which is inhibiting coagulation. (4) Blood serum has an action on damaged cells of the vessel wall and neutralizes toxins which produce damaged cells. For the collection of blood serum a modified Welsh apparatus is used; a small Erlenmeyer flask, two-hole rubber stopper to fit, two glass tubes, one longer than the other, a tip of an ordinary blood counting pipette, within which there is a small glass bead to act as a valve and a salvarsan needle. To prevent contamination with saliva a small amount of cotton is used. Boil apparatus in a normal salt solution. Use the basilic vein in the arm for the entrance of the needle and extract at least 150 c.c. After a few hours this will produce 75 c.c. of serum. Fresh blood may be injected under the skin. Site for injection may be, skin of the abdomen, between shoulders or into the arms or legs. Blood serum in small or large doses is not toxic and no anaphylactic reaction results whether injected at long or short intervals. Dosage, daily injection of 8 to 10 c.c. in children, and up to 20 or 40 c.c. in adults.

Indications for use of blood serum: Severe degree of anemia which results from repeated hemorrhages from mucous membranes; continuous oozing of blood due to fibroid of the uterus; cases of melena of the new born; cases of Purpura Haemorrhagica; malnutrition in infants where loss of blood is concealed, and in jaundiced patients good results can be obtained. Human blood serum therapy does not replace transfusion of blood from one patient to another in emergency cases of hemorrhages. Hemo-

philiacs are not usually benefited by human blood serum theropy.

A FEW OF THE FACTS EMPHASIZED BY DR. ROBERT STARK OF ALLEGAN, IN HIS PAPER SMALLPOX CASES."

"The mildness of smallpox cases might be due in part to the more rigid quarantine laws, and in part to the fact that the people are quite generally vaccinated. This furnishes the unsuitable soil for the infection to develop. Are we inducing immunity in some people as a result of vaccination in our ancestors?

"The cases cited were all in families exposed. There was a group of seven members with five cases of discrete smallpox. The second group of six members, father of which was vaccinated previously, two cases; the remainder unsuccessfully vaccinated. Third group of five members, father previously vaccinated, one mild case, remainder unsuccessfully vaccinated. Fourth group, five members, father previously vaccinated, only two successfully vaccinated out of the group. Fifth group, seven members, all successfully vaccinated but one.

"The fact of an unsuccessful vaccination does not prove that there is an immunity to smallpox.

"In Minnesota the vaccinated individual in smallpox epidemics enjoys a great deal of freedom."

The secretary regrets that the morning paper misapplied the facts concerning vaccine. The modern manufacture of vaccine through animal test after preparation reduces the possibility of poor vaccine and contamination of tetanus to a very small degree.

Dr. Carl B. Davis gave us a lantern slide demonstration upon Exophthalmic Goiter. Many cases of neurasthenia and hysteria may be manifestations of a disturbance in secretion of the thyroid gland. He emphasized the fact that surgical method would give best results when cases were operated upon before changes had taken place in the body cells as those of the heart and nerves. To obtain the most from this paper one should have been present. Dr. Davis has not sent us an abstract of his paper. This will be published later if received.

C. B. FULKERSON, SECRETARY.

KENT COUNTY.

The regular meeting of the Kent County Medical Society was held Nov. 12, 1913 and in spite of the fact that a number of the members were in Chicago in attendance upon the sessions of the Clinical Congress of Surgeons a goodly attendance listened to the follwing papers:

"A Case of Myocarditis with Several Interesting Complications," by Dr. J. D. Brook.

"The Role of Pituitary Extract in Obstetrics." C. E. Boys of Kalamazoo.

Dr. Boys reported some fifty cases in which he had used the Pituitary Extract and discussed the indications and contra-indications for the exhibition of this agent. It was a most interesting paper and one that was greatly apprecated by all the members present.

E. W. DALES, SECRETARY.

TUSCOLA COUNTY.

The Annual Meeting of the Tuscola County Medical Society was held at the Hotel Montague, Caro, Mich., October 13th, 1913, and the following program was carried out:

1. Call to order by the President.
2. Reading minutes of last meeting.
3. Clinic.
4. Report of Secretary-Treasurer, W. C. Garvin.
5. Report of Board of Censors. C. W. Clark.
6. Report of Board of Trustees, Geo. Bates.
7. Address of the President, J. MacKenzie.
8. Paper "Hypertrophy of the Faucial and Pharyngeal Tonsil." Dr. W. L. Slack, Saginaw Discussion, Drs. Hays and Harrison.
9. Paper, "Some Problems of the Specialist as Met With in General Practice." Dr. P. J. Livingstone, Detroit. Discussion, Drs. Spohn and Steinbach.
10. Election of Officers.
11. Miscellaneous Business.
12. Adjournment.

Following is the list of officers elected for the year 1914:

President—R. H. Steinbach, Richville.
Vice-President—T. W. Hammond, Akron.
Secretary-Treasurer—W. C. Garvin, Millington.
Trustee three years—M. M. Wickware, Cass City.
Member Medico-Legal Committee—A. L. Seeley, Mayville.

W. C. GARVIN, SECRETARY.

County Secretaries Department

THE SOCIAL RELATION OF THE MEDICAL SOCIETY TO ITS MEMBERS *

ROLAND M. CLARK, M.D.,
SECRETARY WAYNE COUNTY MEDICAL SOCIETY.

Although I have selected as subjeet of my paper today, "The Social Relation of the Medical Society to its Membership," yet the real gist, which I think will interest this representative official body of medical men, will be a review of the working of a large medical society such as there is in Wayne County. Also the application of the social phase in helping to interest those of our profession, who are either delinquent or disinterested parties, in becoming members of our eounty and state societies so that we may all work together to a better advantage for our ethical, financial and educational advancement.

To my rural friends I wish to say that the ideas expressed in this paper may not conform to all your surroundings, nor aid you in overcoming all the obstacles with which you are confronted, yet I hope that you may derive some benefit from hearing this discussion today.

Previous to September, 1910, the Medical Society of Wayne County held its meetings in various plaees with rather unsatisfactory results. During 1908 and 1909 the meetings were held each Monday evening in the County Building with the understanding that they should close at a eertain time. Though the membership kept up to the four hundred mark, yet the soeial phase was very mueh lacking. Several efforts had been made to interest the members of the profession in the purchase of a society home, but nothing had been accom-

* Read at the 5th Annual Meeting, County Secretaries Assn., Flint, Sept. 4 and 5, 1913.

plished up to 1910 unless it was to educate the members to the need of such a place.

In 1910, through the efforts of the President, Dr. A. D. Holmes, and the Board of Trustees, a society home large enough to accommodate the members was purchased. The first meeting was held in the Society Building at 33 High St., East, Sept. 12, 1910. The membership at that time was approximately four hundred, while today there are five hundred seventeen active and fifty-nine associate members, besides a few delinquent members.

In the Society Building there is a large medical library containing many new books and recognized medical journals which are at the disposal of the members. Also there is a café, where a large number gather for their lunch each day, as well as a room in which the Monday evening meetings are held. The attendance during the last year has increased to such an extent that it has been found necessary to add an auditorium with a seating capacity of five hundred, which we are now building at an expense of twenty-five thousand dollars.

Besides the regular officers, the management of a medical society of this size is in the hands of several committees. The house committee has charge of the management of the society building. The library committee has charge of the library, the purchasing of books, journals, etc. The entertainment committee has in charge all the entertainments of the year such as lunches, vaudeville entertainments, etc., the programs for the Monday evening meetings, and is composed of three members, the chairman—who is also the editor of the weekly bulletin—and the secretaries of the medical and surgical sections. The Board of Trustees has charge of the financing of the Society, building and its property. The Board of Directors recommends new members, and transacts such business as would necessarily be referred to them for consideration by the Society. The reporting of all meetings, current events, etc., is done by our librarian.

One's first thought might be that in a society of this size with so many committees that the secretary would have a snap, and with such facilities at the disposal of the society the membership would include nearly every legitimate practitoner in Wayne County, but such is not the case.

Our programs are open for every one to participate in; the meetings are brief and the papers open for discussion; from time to time outside medical men of national prominence appear on the program, yet the question arises: What is the matter, and how can we reach these men who are not members, and get them to join our society?

For convenience and to illustrate what I mean, let us divide the reputable physicians of Wayne County, with whom we come in contact professionally, in society meetings, etc., into four classes:

First, those who are members of our society and who wish to meet together more especially for educational purposes and to promote fraternal interest in the medical profession.

Second, those who are members of our society, who meet together more particularly for social purposes and to promote professional fellowship.

Third. Those who may or may not be members of our society and who are more or less in harmony with the work of the society, but because of declining years, lack of time, stimulus, etc., fail to attend the meetings.

Fourth, those who are not members of the society through ignorance, lack of finances, or the professional "grouch."

I will not discuss the first class any more than to say that we can depend on them for the advancement of the society. They are the main support at all times. The second class is the all important division as to developing social fraternalism, as I see it, in our society. Many men are interested workers in our society today who were not there three years ago. They have a place to go in which to meet their fellow colleagues. They find that Dr. C around the corner is not as horrible a man as they used to think he was, but a jovial good fellow. Thus acquaintance makes for fraternalism, and fraternalism is the axis around which a united force revolves. Though the membership in Wayne County has only increased by a little over a hundred members in the last three years, yet its social relations have increased many times, and we feel well repaid for the money and energy expended in establishing our society home.

Having conceded that the first two classes of physicians are indispensable to a progressive society, how shall we go at it to enlist the remaining medical men to join our ranks, and what are some of the obstacles to be overcome.

Many in class three are men of good standing in the profession, but declining years, lack of interest, prejudice towards some member of the society, and many petty excuses have kept them from becoming a unit in the working machinery of our profession.

Before discussing the remedy for this class I will take up the fourth class with the idea of applying similar treatment to both. The fourth contains a fairly good number of men with many of them, I fear, suffering from delusions, hallucinations and illusions. They have formed the idea that their knowledge is sufficient, or that they know more than the student of medicine, for ignorance often misleads. The society has no attraction for them. One of my colleagues recently stated that he was not going

to bother about attending the Wayne Medical or any of the advance summer courses in this county as he intended going to Europe in a few years. I told him I thought he needed to take an inventory as I feared his stock had depreciated in value.

Some of these members have also had unsatisfactory experiences with other members of the society, and hence criticize the whole society for the error of one man. They are running around with a chip on their shoulder waiting for someone to knock it off.

There are others too ignorant to mingle with men having a knowledge of modern medicine, and seek to save themselves by constantly condemning their fellow practitioner to the laity. College requirements have so advanced that few of this ignorant class are found among the younger physicians.

I believe that we, as medical men, should first begin our social relations outside of the society. We should at all times try to gain the respect and good will of all those who are disinterested. Having gained their good will and confidence it will be easy for us to invite them to attend the society meetings with us. It may be a sour tart to swallow, but it is our duty, and if we succeed we must meet our obligations. They may offer many excuses which we will be called upon to overcome, but we must be patient and show them by our good fellowship that they should become one of us.

One of the greatest drawbacks to the promotion of fraternal fellowship is the lack of observance of medical ethics. I think that it is our duty when called by any family to take charge of a case, either medical or surgical, which has recently been under the care of another physician, to make sure that medical ethics have been observed before we assume control of the case. Having accepted the case, praise the service of your colleague, even though it may seem he has erred. It may be you would have done the same under the same condition. Many malpractice lawsuits have been encouraged by lack of proper judgment. Words of praise will win friends both in the profession and among the laity, while words of criticism are sometimes costly and often end disastrously. If we learn to be social and ethical outside of the society we will be in the meetings.

You secretaries should see to it that every new member meets everyone present as far as possible at your meetings. Be kind to the young physician, and lend advice when it is sought. Show your laity neighbor that you are not afraid of the young physician. Say "hello" and "how are you" at all times. A friend we always need, for no one knows at what minute an enemy may accomplish his desires. See to it that the young physican becomes a member of your society, and you will both profit by it.

I wish that this society would do all in its power to discourage that man known as the corporation doctor, who feels it his duty to sneak in unawares without the knowledge of the attending physician to see what he can find. How much more manly it would be to ask permission of the attending physician to examine the patient in his presence, and with far better results for the company he represents. These men may be found within our own ranks, gentlemen. They are one of the great obstacles, and cause endless numbers of enemies among the members of the latter two classes. They are neither useful nor ornamental and are violaters of medical ethics.

In Detroit there has been organized what have been known as the East and West Side Physician's Social Clubs, with Woodward Avenue as the residential dividing line. The members of these clubs meet in the most central portion of their localities for the purpose of becoming better acquainted and of discussing matters pertaining to the business side of the practice of medicine. There were a number of physicians who thought they could not charge more than fifty cents at the office and one dollar at the house. In order to become members of this club they had to pledge themselves to charge not less than seventy-five cents at the office and $1.50 at the house and not less than $15 for a confinement. Such a club appealed to them from a financial standpoint as well as the knowledge that his competitor is charging the same, and he at once joins and becomes a regular attendant. By attending these meetings they are forming a fellowship among their colleagues that, if I am not mistaken, will reach farther than our social club. These clubs are also contemplating establishing, in the early fall, a credit system, which, if successful, and I don't know why it shouldn't be, will be of great value to the medical men.

In conclusion, brother secretaries and friends:

1. Let us try to keep the State Medical Society of Michigan in the front ranks of those of our Union.
2. Let us encourage each member of our various societies in the promotion of social fellowship, first outside of the society, and then I am sure it will not be wanting in the society.
3. Let us stand by the State Secretary who is so full of vim and energy, and who is editing such a modern medical journal.
4. Help and encourage the young physician.
5. Encourage adherence to medical ethics.
6. Discourage the sneak corporation doctor

who is a member of our society, but lend aid to the man who seeks co-operation.

7. Abhor the contract physician until you can correct his ways.

With the commencement of a new society year at hand we urge upon the County Secretaries to promptly supply us with the reports of the transactions of their Annual Meetings in order that our records may be accurately revised to date. We shall be glad to publish the reports of the officers and committees of your society. The publishing of these reports may be the means of imparting valuable ideas and suggestions to other secretaries and societies. Kindly favor us with these reports so that they may be incorporated in the next issue of THE JOURNAL.

We have discontinued the issuing of membership cards. Each member who has paid his dues will receive direct from this office a certificate of membership which will serve every purpose and will be sufficient evidence of his being in good standing.

Your inquiries will always receive prompt answers from this office. Do not hesitate to write us regarding any subject or matter in which we may be of assistance to you or your society.

You will assist the canvassers who are covering the state in the interests of our membership campaign if you will supply them with full data regarding the scope and activities of your society. If possible and you can spare the time accompany them upon some of their rounds. Further, if a number of new applications for membership are presented to you arrange for their prompt consideration; call a special meeting if necessary. Then arrange a little special entertainment for the first meeting which these new members are to attend and see to it that they not only meet and become acquainted with all your members but also impress them with the earnestness and value of your society's work. You have it in your power to cause a spirit of renewed activity and life to be instituted in your organization.

Remember that your society incurs no expense in this campaign. Its expense is entirely defrayed by the State Society. The only information we desire is to have you report to this office the names of the members whose application was secured through the work of these canvassers. The work has been started both in the southern and northern part of the lower peninsula and should be completed by the first of the year. The work in the upper peninsula will be taken up as soon as the weather permits. Our mark is: 1,000 new members. We will publish the list of new members as they are reported and thus show the gains made in each society.

With the present year drawing rapidly to an end it is but proper that at this time we should pause a moment and indulge in a retrospective view of what the year has accomplished and to endeavor to ascertain wherein and how the results obtained may be utilized so as to enable us through the experience we have had, to accomplish still greater ends during 1914.

We have endeavored, through this department, to from month to month comment upon the various phases of the secretary's work. We candidly admit that to a certain extent this department has been deficient. Much more might have been said and written that would have been of greater material benefit to every secretary. Acknowledging, at the very beginning, our deficiency, we have resolved to give this department more of our time and thought, so that during 1914 it will serve to be of material assistance to every secretary.

There never was and never will be an organization, no matter what its objects may be, that attained any measure or degree of success that possessed a secretary who performed his duties in a half hearted, perfunctory manner, devoid of all enthusiasm and zeal for his work or office. The life of any organization is greatly dependent upon the manner in which a secretary performs his duties. This is particularly true of a county medical society. If one but observe the county societies of this or any other state he will find that the successful society, the society having the largest membership, having the largest attendance upon every meeting,—in brief the society that is prospering, progressing and enjoying the full benefits of organized medical efforts, has for its secretary a live, active and enthusiastic man. He it is that by hard work and effort has instilled enthusiasm, energy and interest among the members.

This being so it then becomes all of us to resolve that from now on we will earnestly endeavor to instill a little more life, ginger and loyal enthusiasm in our work and thus cause these contagious spirits to become instilled in our members. We need these attributes and our members need them if we ever expect to be able to turn out of the rut in which our progress is hard and slow and thus cause us to travel along at slow or intermediate speed when we should be running along on high. We have got to work, to boost and then work and boost some more and not account too closely for the hours that are required for such efforts.

No matter how small may be the number of physicians in your county you can make an organization of twelve members accomplish as

much individually and collectively for each member and for your community as can the county society with fifty, one hundred, or more members. Perfect the organization in your county and build up with the material and men at hand. Work, yes it's going to require hard work. Work, however, which you will find enjoyable, pleasing and elevating as success commences to loom up in response to your efforts. There will be a certain personal satisfaction that will come to you when you have attained the ends strived for—a satisfaction of having well performed your duty.

So with the commencement of a new year let us all resolve to do just a little more work and give a little more of our time to the lifting up of our organization to a higher plane.

We urge that every secretary read the reports of the transactions of the other county societies. The report of the annual meeting of the Genesee County society in this issue is of interest. The year's work that has been performed is worthy of every commendation. If every society and its officials would set out to accomplish what has been done during the past year by Genesee County we would, before the close of another year, have a complete state organization. The efforts of Dr. Clark and the work he has accomplished may be well emulated by us all.

"Don't be utterly discouraged because you have to do the same job over and over again. Nature has been staging sunsets and sunrises for some eons now—yet we remark no deterioration in their quality from year to year."

—*Colliers.*

Book Notices

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago, Volume II., Number V. October (1913). Octavo of 174 pages, 52 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, $8.00. Cloth, $12.00.

The fifth number of the second volume of these clinics maintain the excellent standard established. Criticisms as to a sameness or monotony due to a similarity of cases reported are unwarranted, for the clnical cases presented are of such importance that they will bear numerous repititions.

This number contains a number of cases of bone and joint involvement, and methods of treatment clearly described. Other cases of cancer of various organs and tissues; a talk on cancer by Dr. W. L. Rodman of Philadelphia; cases of gastro-intestinal surgery; and an excellent discussion on Hernia comprise the contents of this number. The reader cannot help but profit.

Modern Medicine. Its Theory and Practice. In original Contributions by American and Foreign Authors. Edited by Sir William Osler, Bart., M.D., F.R.S., Regus Professor of Medicine in Oxford University, England; Honorary Professor of Medicine in Johns Hopkins University, Baltimore; formerly Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal; and Thomas McCrae, M.D., Professor of Medicine in the Jefferson Medical College, Philadelphia; Fellow of the Royal College of Physicians, London; formerly Associate Professor of Medicine in Johns Hopkins University, Baltimore. In five octavo volumes of about 1,000 pages each, illustrated. Volume 1, Bacterial Diseases, Diseases of Doubtful or Unknown Etiology, Non-Bacterial Fungus Infections, the Mycoses. *Just Ready.* Price per volume, cloth, $5.00, net; half morocco, $7.00 net. Lea & Febiger, Publishers, Philadelphia and New York.

The first volume of the new *Osler's Modern Medicine* has just made its appearance. This new issue is published under the same editorial management as the original work, and the corps of distinguished contributors is virtually the same. The unusual excellence of the material presented is thereby assured, and the reduction in the price of the complete work, now in five volumes, will make it appeal strongly to all practitioners of medicine, and especially to those who do not possess the original work. Comparison with the first volume of the previous edition shows that the text has been set in much larger and clearer type, the size of the page has been increased, and there are nearly two hundred pages more than in the original first volume. The many changes which have occurred in both the scientific and practical sides of medical knowledge in the last six years are shown in the complete reorganization of the subject matter. The introductory chapter, the historical section, the article on the biology of the Mosquito, the contribution on "Inheritance and Disease," the introductory section on Protoza and the article on Life Insurance have been omitted. On the other hand, new or practically new sections will be found on Pellagra, Beriberi, Trypanosmiasis, Malta Fever and on Electrical Diagnosis in Cardiac Diseases. The condensation has been principally in the etiological and pathological portions, and throughout the work increased stress has been laid on diagnosis and treatment.

It is a volume that one will prize very highly. It meets all that one may desire in a very comprehensive manner. It is deserving of a place in the library of every medical man.

A Practical Treatise on Medical Diagnosis. For Students and Physicians. By John H. Musser, M.D., LL. D., late Professor of Clinical Medicine in the University of Pennsylvania; formerly President of the American Medical Association, etc. New (sixth) edition, revised by John H. Musser, Jr., B.S., M.D., Instructor in Medicine in the University of Pennsylvania; Assistant Physician to the Philadelphia Hospital; Physician to the Medical Dispensary of the Presbyterian Hospital; Physician to the Medical Dispensary of the Hospital of the University of Pennsylvania. Octavo, 793 pages, with 196 engravings and 27 colored plates. Cloth, $5.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

The problem of dagnosis is the first one which confronts the physician every time he sees a patient, and upon it must depend the entire management and treatment of the case. For this reason the skilled diagnostician has a tremendous advantage over those who are less qualified, and his results are proportionately more successful. Every doctor therefore owes it to his patients, and more especially to himself, to establish in each case an unerring diagnosis. In no branch of medical science have the

recent advances been made helpful; and in no other have they given us more exact methods. The appearance of a new edition of *Musser's Medical Diagnosis,* setting forth the entire subject in its latest development, is therefore timely. The splendid store of clinical material in the book has been carefully preserved and brought abreast of our knowledge of today. The enormous advances since the appearance of the previous edition have resulted virtually in the rewriting of the entire volume, and this has made it possible by judicious condensation to reduce the book to about 800 pages without sacrificing any of those features which contributed to the great popularity of the earlier editions. In the sections on the infectious diseases, the disease of the cardio-vascular system, the metabolic diseases, the diseases of the gastro-intestinal and the urinary systems, much new material has been incorporated. The chapter on the infectious diseases has been divided into two parts, the first containing those diseases due to vegetable organisms, the second those due to animal parasites. New sections have been added to the discussion of the disturbances of the internal secretions. A new chapter has been added dealing with the various functional tests of organic efficiency that have proved of such value in diagnosis and prognosis. The sections on laboratory diagnosis have been extensively revised. In the section on physical diagnosis many changes have been made particularly in the division dealing with cardiac disorders, and new illustrations have been added representing the various types of arrhythmia. In its new issue *Musser's Medical Diagnosis* stands unrivaled. Its high authority is evident on every page, and it presents the most modern thought and methods throughout.

The illustrations and typographical work are excellent. The book in its present revised form merits a large sale for the purchaser obtains more than value received for his money.

PATHOLOGY, GENERAL AND SPECIAL. A manual for Students and Practitioners. By John Steinhouse, M.A., B.Sc. (Edin) M.B. (Tor.), formerly demonstrator of Pathology, University of Toronto, Toronto, Canada. Second edition, revised and enlarged; including selected list of State Board Examination Questions, 12mo. 278 pages, illustrated. Cloth, $1,00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

The medical student of today, from the time he enters college until he graduates, is confronted with a bewildering mass of scientific information, the main facts of which he is expected to assimilate in four years. Even after he enters professional life he must still continue his studies in order to keep himself abreast with modern progress. To be able to grasp intelligently the new advances as they come and make practical application of them, he should have the fundamentals of the subject clearly and prominently in mind. To this end the Epitome is admirably suited; it is not a means of escape from wider or deeper reading, but an incentive and trustworthy guide to it. Stenhouse's Epitome of Pathology is unusual in the excellence of its text, illustrations and arrangement, and the questions at the end of each chapter will be found a strong mental stimulus, for they bring out in bold relief the important points throughout the volume.

SURGICAL SUGGESTIONS.

X-ray plates, properly interpreted, are of great service in the diagnosis of mastoiditis, acute and chronic.Stereoscopy and comparison of the pictures of the two sides enhance the value of the radiographic examination.—*American Journal of Surgery.*

If vomiting after a laparotomy persist in spite of treatment, especially in cachectic individuals, inspect the wound. Occasionally the cause is prolapse of abdominal contents through the opened incision—*American Journal of Surgery.*

As a quick method of cauterizing the appendix stump, amputate the organ with knife or scissors dipped in pure phenol.—*American Journal of Surgery.*

In case of intractable "dyspepsia" persistent tenderness in the right iliac region is suggestive of chronic appendicitis as the cause.—*Amercan Journal of Surgery.*

Miscellany

A PROCLAMATION BY THE GOVERNOR.

Good health is an asset. The laws of health are as much God's laws as are the ten commandments. The ravages of the White Plague surpass the ravages of war. Intelligent concerted effort on the part of the American people would in a few generations exterminate this plague. It is humane to use all possible means to relieve the afflicted and protect those who are constitutionally weak.

If, however, it is imperative that tuberculosis patients have an abundance of pure air and sunshine, systematic "out door" exercise, nourishing food and pleasant surroundings, how immensely important is it that all who are not afflicted have the benefit of these agencies in order that we may eventually have a people who are immune.

The truth of the matter is, there exists a superstitious fear in relation to pure air, especially in living and sleeping rooms, a fear of disastrous consequences from "out door" living. Let the evangels of rational living not relax their efforts in teaching the people how to avoid the contagion of tuberculosis but at the same time let them teach "well people" how to acquire the physical vigor that resists tuberculosis and at the same time resists all other diseases.

Therefore, I, Woodbridge N. Ferris, Governor of the State of Michigan, urge the observance of Sunday, December the 7th, as Tuberculosis Day.

Given under my hand and the Great Seal of the State of Michigan, this nineteenth day of November, in the year of our Lord, one thousand nine hundred and thirteen, and of the Commonwealth the seventy-seventh.

WOODBRIDGE N. FERRIS, GOVERNOR.

By the Governor: Fred'k C. Martindale, Secretary of State.

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